



FIRST QUARTER 2006 GROUNDWATER MONITORING REPORT

Sampled on March 1, 2006

Job # SP-160

LOP # 12341

Big Oil & Tire - McKinleyville BP (McKinleyville 76)

2698 Central Avenue

McKinleyville, California 95519

April 25, 2006

This *Quarterly Groundwater Monitoring Report* was prepared by SounPacific Environmental Services (SounPacific) staff for Big Oil and Tire Co. (BO&T), using previous studies that were conducted by Clearwater Group, Inc. (CGI), SounPacific, and file review conducted at Humboldt County Department of Health and Human Services: Division of Environmental Health (HCDEH). McKinleyville 76 (the Site) is located at 2698 Central Avenue in McKinleyville, California (Figure 1).

SITE DESCRIPTION

The station is positioned on the northwest corner at the intersection of Central Avenue and Reaser Road (Figure 1), approximately 1.5 miles north of downtown McKinleyville. Site improvements include a single story building and two (2) dispensers. The structure is approximately 800 square feet in size and is positioned near the western property line facing east towards Central Avenue. The Site is surfaced around the current structure with concrete and asphalt. There is currently one (1) 15,000-gallon split compartment UST containing regular gasoline and premium gasoline, positioned approximately 17 feet from the southern property line. A mixer located at the dispensers creates mid-grade gasoline. Sewer and water services are supplied by public utilities.

Drainage ditches and municipal storm sewers control surface water runoff. All electrical and telephone lines are above ground (Figure 2).

SITE TOPOGRAPHY AND LAND USE

Site topography is relatively flat. The Site elevation is approximately 114 feet above mean sea level (amsl). Regional topography consists of rolling terrain that gently slopes to the west toward the Pacific Ocean (Figure 1). The Site is located approximately 1.5 miles east of the Pacific Ocean. According to USGS maps, the Site is located approximately 1,000 feet south of Norton Creek and 1,000 feet north of Widow White Creek.

This site is located on the uplifted Savage Creek Marine Terrace, consisting mainly of sand, with minor amounts of silt, clay, and gravel. These sediments were deposited on wave-cut benches that have since become exposed through tectonic uplift and changes in sea level. These marine terrace deposits are typically up to a few tens of feet thick and are late Pleistocene in age (Carver and Burke, 1992).

SounPacific understands that the property is owned by BO&T of Arcata, California. The main structure is used as a retail gas station for the retail dispensing of three (3) grades of unleaded gasoline from the USTs onsite. A mini-mart that is combined with a cashiers' office is located inside of the main structure.

The surrounding land use in the immediate vicinity is a mixture of commercial and residential. Properties to the immediate north and south of the Site are commercial with residential properties located to the east and west of the Site. This site is bordered on the south by Reasor Road and to the east by Central Avenue. An apartment complex is located adjacent to the west of the property.

SITE HISTORY

1991 Waste Oil UST Cleaning (Sessions)

On March 1, 1991, Sessions Tank Liners, Inc. (Sessions) exposed the top of the 550-gallon waste oil tank and cleaned the interior by steam cleaning. HCDEH observed the procedure and noted that gasoline and waste oil constituent contamination were visible in the soils surrounding the waste oil tank.

1991 Waste Oil UST Removal (Beacom)

On December 12, 1996, a waste oil UST at the Site was removed by Beacom Construction (Beacom). From the tank excavation, a soil sample and a groundwater sample were collected for laboratory analysis. Analysis of both the soil and groundwater samples reported the presence of petroleum hydrocarbons in both the gasoline and motor oil range, along with elevated levels of the BTXE compounds. The laboratory results for the soil and groundwater samples are summarized in Tables 1 and 2, respectively.

1997 Product Line Test (Beacom)

During pressure testing of the product lines at the Site in January 1997, a leak was identified. The product line was exposed by Beacom and a leak was detected at a plumbing fitting near the south end of the eastern pump island. Mr. Brent Whitner of HCDEH observed the excavation and noted apparent gasoline product in the soil near the line. Mr. Whitner's notes indicated that five (5) to ten gallons of gasoline were recovered from the excavation during the repair process.

1997 Subsurface Investigation (CGI)

On March 25, 1997, Clearwater Group, Inc., (CGI) performed a subsurface investigation at the Site that included drilling eight (8) soil borings (B-1 through B-5, and MW-1 through MW-3, Figure 3). Two-inch groundwater monitoring wells were installed in the three (3) soil borings, MW-1 to MW-3. Laboratory analytical reported the presences of high levels of soil contamination in borings B-5 and MW-3, adjacent to the fuel islands (Table 1).

2000 Subsurface Investigation (SounPacific)

On October 25, 2000, SounPacific performed a subsurface investigation at the Site in accordance with a CGI approved work plan, of October 20, 1998. The investigation consisted of drilling nine (9) soil borings (B-6 through B-14, Figure 3) for the collection of soil and groundwater samples. Soil samples from depths of five (5) and ten feet below ground surface (bgs) were analyzed from each boring. Laboratory analysis of these samples did not identify any significant soil contamination. Total petroleum hydrocarbons and MTBE were identified in grab groundwater samples from borings B-9 and B-12 (Table 2). Boring B-9 is on the eastern margin of the Site and boring B-12 is to the southwest of the Site. SounPacific recommended further delineation to the west of boring B-9 and south-southwest of boring B-12. HCDEH concurred with this recommendation in a correspondence dated March 1, 2001.

2002 Subsurface Investigation (SounPacific)

Further subsurface investigation was conducted at the Site in April and June of 2002. In April 2002, SounPacific hand augered three (3) soil borings (B-15 through B-17) on the property, to the west of the Site (Figure 3). These borings were used for the procurement of groundwater samples only, in order to assist in the delineation of the groundwater contamination. Laboratory analysis of the groundwater samples reported TPHg, Toluene, MTBE, and TAME in the sample from location B-17 only, which is the southernmost location (Table 1).

On June 17, 2002, further subsurface investigation was conducted that consisted of drilling one (1) soil boring (B-18) to the southwest of the property on Reasor Road, and the drilling and installation of three (3), two-inch diameter groundwater monitoring wells (MW-4 to MW-6). Soil and a grab groundwater samples were collected from boring B-18, along with one (1) soil sample from boring MW-4 and two (2) soil samples from soil boring MW-5. Elevated concentrations of TPHg, TPHd, BTXE, and MTBE were reported in both soil samples from boring location MW-5 (Table 1). The monitoring wells were incorporated into a groundwater monitoring program (Table 5).

2003 UST Installation (Beacom)

On October 6, 2003, Beacom conducted a subsurface geotechnical investigation that included the collection of soil and groundwater samples to evaluate soil conditions related to the installation of a new UST system. One (1) soil sample (McK 76-2) and one (1) groundwater sample (McK 76-1) were collected and analyzed for TPHg and TPHd (Figure 3). Groundwater was determined to be impacted with both TPHg and TPHd (Table 2).

On October 28-29, 2003, Beacom conducted further site evaluation activities by excavating a UST pit and product line trenches for the installation two (2) new dual-walled 15,000-gallon split compartmented gasoline USTs, associated product lines, and dispenser system. The soil that was removed during these activities was combined with the preliminary test pit soil. Sixteen soil samples (MCK 76 SP1 through MCK 76 SP16) were collected from this stockpile and analyzed to ensure that the soil could be used as fill for the future UST removal. The number of soil samples was at the direct request of HCDEH staff, and was to ensure that only clean soil was placed back in the excavation. Based on the analytical results it was determined that the stockpiled soil could be used onsite for backfilling purposes. In addition to the stockpile soil samples, a water sample was collected from the tank test pit. Laboratory analysis reported the presence of elevated levels of TPHg and MTBE, with low levels of benzene, xylenes, and ethylbenzene (Table 2).

The new UST system was installed in the southern portion of the property during November 2003. The new tank system was installed prior to the old USTs being removed, allowing the service station to remain in business during the construction activities.

2003 Excavation & Soil Removal (SounPacific)

On December 22, 2003, Beacom removed the three (3) former gasoline USTs. Following the removal of the USTs, SounPacific continued excavation activities to remove as much as the contaminated soil as possible, in accordance with the approved work plan. During the course of activities, monitoring well MW-5 was destroyed. All investigative work was performed in accordance with the approved SounPacific *Excavation Work plan*, dated November 26, 2003.

As excavation activity progressed, a field screening, using a Photo Ionization Detector (PID), was conducted to monitor soil excavation tailings and sidewalls as described in the approved work plan. Five (5) soil samples (DI-1 through DI-5) were collected from the sidewalls at five (5) locations in order to verify the limits of excavation and PID reading accuracy. The locations of these samples are shown in Figure 3, with the analytical results presented in Table 2. Groundwater from the excavation pit was pumped out to remove as much floating product and contaminated groundwater as practical. The removed water was stored onsite in a portable storage tank. A water sample (McK 76 WT17) from the water tank was collected and analyzed to determine hydrocarbon concentrations. Laboratory analysis of the water sample reported significantly elevated levels of all petroleum hydrocarbons (Table 2). The collected water (1,350-gallons) was subsequently removed and disposed of by Chico Drain Oil.

The excavated soil was stockpiled onsite in an area separated from the soil that was removed during the test pit excavation and UST system installation. The proposed excavation did not completely remove all the in situ contaminated soil due to a lack of onsite storage space for the excavated soil and heavy rain conditions. The excavation was backfilled with the stockpiled soil from the earlier UST installation that had been deemed suitable for onsite use based on the results of laboratory analytical and the leachability studies. The stockpiled contaminated soil was removed from the Site by Beacom on February 9-11, 2004, and transported to Bio Industries in Red Bluff, California for disposal.

2004 Subsurface Investigation (SounPacific)

The December 2003 excavation did not remove all the contaminated soil, therefore during the period between September 23 through 27, 2004, SounPacific conducted further site characterization to delineate the extent of the remaining soil contamination. Twelve borings (B-19 through B-30) were drilled and soil samples were collected for analysis. The boring locations were to the north, east, and west of the December 2003 remedial excavation, as shown in Figure 3. The thirty-six soil samples from the twelve borings were analyzed for TPHg, BTXE, and five-fuel oxygenates.

Boring B-19 was located to the east of the original soil excavation pit. While located in an area of suspected soil contamination, further excavation in the direction of B-19 would not be possible due to the presences of the Site's office building. Hydrocarbon contamination concentrations, in B-19 were relatively low, and therefore it was determined that no further remedial action was required in this area.

Three (3) borings (B-23 through B-25) were drilled to the north of the site of the former USTs (Figure 3). Laboratory analytical results of the nine (9) samples collected from the three (3) borings to the north, only reported TPHg in one (1) sample (1.3 ppm in sample SB-24 @ 4'). BTXE compounds were commonly non-detect, and if present were less than 0.015 ppm. The highest MTBE concentration was 0.17 ppm. It was therefore concluded that no further remedial excavation would be required north of the former UST area.

The remaining eight (8) borings were located to the east of original excavation. Three (3) borings (B-20 through B-22) were located along a north-south axis directly east of the edge of the original excavation. Laboratory analytical results of these three (3) borings indicated the highest levels of hydrocarbon contamination concentrations at four (4) feet bgs with TPHg at concentrations of 1,800 ppm (B-20), 3,600 ppm (B-21), and 570 ppm (B-22). In all three (3) borings, hydrocarbon contamination concentrations decrease dramatically with depth, with the maximum TPHg concentration at 10 feet bgs being 5.9 ppm. With the exception of the four (4) feet bgs samples in B-20 and B-21, the levels of the BTXE compounds were generally low. The highest concentration of MTBE (6.6 ppm) was reported in B-20 at 4 feet bgs. The next three (3) step-out borings (B-26 through B-28) were located approximately 10 feet further east than the initial borings in this area, and the final two (2) borings (B-29 and B-30) were located a further 10 feet to the east. As step-out borings proceeded to the east, hydrocarbon contaminations continued to decrease both in the easterly direction and with depth. However, TPHg concentrations still exceed 250 ppm in the shallow samples (Table 2).

2004 Soil Excavation (Beacom)

The September 2004 investigation delineated the extent of contaminated soil that remained and

required remedial action. On December 1, 2004, the excavation of the remaining known contaminated soil commenced. The objective of the soil excavation was to remove the accessible contaminated soil that had TPHg level in excess of 100 ppm based on laboratory results. To monitor contaminant levels and to ensure only contaminated soil was removed, the removed soil and the excavation sidewalls were continuously screened using a PID as the excavation progressed. Based upon previous experience, it was determined that a PID screening level of 300 ppm would meet the required clean-up standard.

The excavation was initiated on December 1, 2004 in an area of confirmed contamination, and continued until December 3, 2004, when clean-up objectives had been achieved in all accessible areas. However, in two (2) general locations it was not possible to meet this objective due to the potential of compromising structural integrities. These areas were the dispenser island west of the excavated pit and the drainage ditch along Central Ave.

At the completion of the removal activities, an area of approximately 50 feet by 35 feet and to a depth of between eight (8) and eleven feet bgs, had been excavated. Based on field screening data, and the limited available space onsite, the soil was generally loaded directly on trucks for transportation and disposal. A total of 672 tons of petroleum-contaminated soil was removed from the Site and disposed of at Bio Industries in Red Bluff, California.

RESULTS OF QUARTERLY SAMPLING

Under approval of HCDEH, SounPacific is conducting quarterly groundwater monitoring at the Site. Quarterly water level data is used to input into a standard three-point gradient problem to generate a two-dimensional groundwater gradient map and calculate groundwater flow direction. Quarterly sampling events monitor changes in the hydrocarbon contamination levels present in the groundwater beneath the Site. Monitoring wells were gauged and sampled on March 1, 2006.

FIELD DATA

Wells gauged: MW-1, 2, 3, 4, and 6

Groundwater: Ranged from 112.38 to 112.58 feet amsl (Table 3)

Floating product/Sheen: Sheen detected in wells MW-1, 3, 4 and 6

GW flow direction: South-Southwest (Figure 4)

GW Gradient: 0.003 feet per foot (Figure 4)

On March 1, 2006, the depth to groundwater in the Site's five (5) monitoring wells ranged from 1.38 feet below top of casing (btoc) in wells MW-2 to 2.60 feet btoc in well MW-4. When corrected to mean sea level, water level elevations ranged from 112.28 feet amsl in well MW-1 to 112.58 feet amsl in well MW-4. Groundwater levels for the March 1, 2006, monitoring event, along with historical level and elevations are included in Table 3. Groundwater flow was towards the south-southwest at a gradient of 0.003 feet per foot. The groundwater flow and gradient are graphically depicted in Figure 4. Prior to sampling, all wells were purged; the groundwater field parameters for each well are presented below.

MONITORING WELL MW-1 GROUNDWATER FIELD PARAMETERS

Time	Total Vol. Removed/ gal	pH	Temp./ F	Cond./ ms(cm)⁻¹
12:09 pm	0	6.52	56.23	0.473
12:13	1.7	6.58	58.03	0.461
12:17	3.4	6.50	58.42	0.439
12:22	5.0	6.52	58.49	0.445

MONITORING WELL MW-2 GROUNDWATER FIELD PARAMETERS

Time	Total Vol. Removed/ gal	pH	Temp./ F	Cond./ ms(cm)⁻¹
11:39 am	0	6.57	58.13	0.199
11:45	1.8	6.57	59.31	0.169
11:50	3.6	6.55	59.26	0.169
11:55	5.3	6.57	59.30	0.162

MONITORING WELL MW-3 GROUNDWATER FIELD PARAMETERS

Time	Total Vol. Removed/ gal	pH	Temp./ F	Cond./ ms(cm)⁻¹
11:16 am	0	6.50	57.19	0.542
11:21	1.4	6.55	57.20	0.539
11:26	2.8	6.57	57.87	0.548
11:30	4.2	6.59	57.78	0.544

MONITORING WELL MW-4 GROUNDWATER FIELD PARAMETERS

Time	Total Vol. Removed/ gal	pH	Temp./ F	Cond./ ms(cm)⁻¹
10:56 am	0	5.46	55.18	0.142
11:00	1.5	5.48	55.79	0.142
11:04	3.1	5.46	55.25	0.202
11:09	4.6	5.56	55.20	0.105

MONITORING WELL MW-6 GROUNDWATER FIELD PARAMETERS

Time	Total Vol. Removed/ gal	pH	Temp./ F	Cond./ ms(cm)⁻¹
12:32 pm	0	5.65	55.36	0.124
12:39	1.6	5.79	55.76	0.129
12:45	3.2	5.74	55.80	0.130
12:53	4.7	5.79	56.00	0.286

ANALYTICAL RESULTS

Sampling locations: MW-1, 2, 3, 4, and 6
Analyses performed: TPHg, BTXE, MTBE, DIPE, TAME, ETBE, TBA, TPHd, TPHmo
Laboratories used: Basic Laboratory, Inc., Redding, California (Cert No. 1677)

The analytical results for the current monitoring event are presented on the next page and graphically depicted in Figure 5. The laboratory report is included as Appendix A. The historical analytical results for all monitoring wells, since the implementation of groundwater monitoring are included as Table 4.

	<u>MW-1</u> (ppb)	<u>MW-2</u> (ppb)	<u>MW-3</u> (ppb)	<u>MW-4</u> (ppb)	<u>MW-6</u> (ppb)
TPHg:	12,500	316	5,750	ND < 50.0	ND < 50.0
Benzene:	ND < 62.5	14.7	189	ND < 0.5	0.5
Toluene:	ND < 62.5	1.3	15.1	ND < 0.5	ND < 0.5
Xylenes:	ND < 125	12.6	17.8	ND < 1.0	ND < 1.0
Ethylbenzene:	ND < 62.5	10.8	45.6	ND < 0.5	ND < 0.5
MTBE:	24,800	59.1	562	ND < 1.0	14.4
DIPE:	ND < 62.5	ND < 0.5	ND < 2.5	ND < 0.5	ND < 0.5
TAME:	ND < 62.5	3.2	46.2	ND < 0.5	0.8
ETBE:	ND < 62.5	ND < 0.5	ND < 2.5	ND < 0.5	ND < 0.5
TBA:	ND < 6,250	ND < 50.0	ND < 250	ND < 50.0	ND < 50.0
TPHd:	177	ND < 50	4,040	ND < 50	ND < 50
TPHmo:	119	ND < 50	392	134	108

COMMENTS AND RECOMMENDATIONS

On March 1, 2006, the First Quarter 2006 quarterly groundwater monitoring event for the five (5) onsite monitoring wells at the McKinleyville 76 facility, located at 2698 Central Avenue in McKinleyville, California was conducted. A summary of the results are presented below.

- The depth to groundwater in the five (5) onsite wells ranged between 1.38 feet btoc (MW-2) to 2.60 feet btoc (MW-4). Groundwater flow was towards the south-southwest at a gradient of 0.003 feet per foot.
- Groundwater samples from the five (5) onsite wells were collected and analyzed for TPHg, BTXE, five-oxygenates, TPHd, and TPHmo. Laboratory results reported TPHg in three (3) wells at concentrations that ranged from 316 ppb (MW-2) to 12,500 ppb (MW-1). Benzene was reported in three (3) wells at concentrations that ranged from 0.5 ppb (MW-6) to 189 ppb (MW-3). Toluene, xylenes, and ethylbenzene were reported in wells MW-2 and MW-3, with toluene at concentrations of 1.3 ppb (MW-2) and 15.1 (MW-3), xylenes at 12.6 ppb (MW-2) and 17.8 ppb (MW-3), and ethylbenzene at 10.8 ppb (MW-2) and 45.6 ppb (MW-3). The BTXE compounds were also likely to be present in well MW-1, but were not reported due to the elevated reporting limit. MTBE was reported in all wells except MW-4, at concentrations that ranged from 14.4 ppb (MW-6) to 24,800 ppb (MW-1). TAME was reported in three (3) wells at concentrations that ranged from 0.8 ppb (MW-6) to 46.2 ppb (MW-3). TPHd was reported in two (2) wells at concentrations of 177 ppb (MW-1) and 4,040 ppb (MW-3). TPHmo was reported in four (4) wells, at concentrations that ranged from 108 ppb (MW-6) to 392 ppb (MW-3).

Based upon these results the following observations and conclusions have been made.

- TPHg has consistently been reported in all wells except MW-4, during the majority of the sampling events thus far. Concentrations have been very high and fluctuating, with levels ranging from 10^3 to 10^4 ppb in MW-1, MW-3, and MW-6. For the first time since the

second quarter 2003, well MW-6 did not report the presence of TPHg. Changes in TPHg levels are shown in Figures 6 through 10.

- BTXE has been reported consistently in all wells except MW-1 and MW-4, for nearly all the sampling events thus far. BTXE has been reported in MW-1 with less consistency, which may be the result of the elevated reporting limits. Benzene concentrations appear to be decreasing in well MW-3. Benzene concentrations were greatly decreased in well MW-6 since the last quarter and near the detection limit (~0.5 ppb). Changes in BTXE levels are shown in Figures 6 through 10.
- MTBE has been reported in wells MW-1 and MW-3 at concentrations ranging from 10^2 to 10^4 ppb during every sampling event since the inception of the monitoring program. MTBE was reported in well MW-2 during all but one sampling event at varying concentrations. MTBE has not been reported in MW-4 since the 2nd Quarter 2003 sampling event. Changes in BTXE levels are shown in Figures 6 through 10.
- TAME has been reported in MW-1 during various sampling events at varying concentrations, although the raised reporting limits may mask its presents. TAME was not reported in MW-2 until the last four monitoring events, when it has been reported at low concentrations. TAME has been reported in well MW-3; however, the concentrations are decreasing with every sampling event. TAME has not been reported in MW-4 since the 1st Quarter 2003 sampling event. TAME was reported in MW-6 during different sampling events at varying concentrations and is showing a decreasing concentration trend with time.
- DIPE and ETBE have not been reported in any well since the inception of the monitoring program.
- TBA has appeared infrequently in wells MW-1, MW-3, and MW-6, but has not been reported in wells MW-2 and MW-4.

- TPHd has appeared in most sampling events at high and fluctuating concentrations in all wells except MW-4, in which TPHd has only appeared three times since the inception of the monitoring events. TPHd concentrations have been reported at the highest concentrations in well MW-3. Overall, TPHd concentrations in wells MW-1 and MW-4 appear to be decreasing (Figures 6, 7, 8, 9, and 10).
- TPHmo has been reported in all wells at various times since the inception of the monitoring. The highest concentrations of TPHd have been reported from wells MW-1, MW-3, and MW-6.

Based on the results of the March 2006 monitoring event and historical results, the following future activities are proposed.

- Groundwater monitoring will be continued until further notice. Groundwater level measurements will be collected from the five (5) onsite monitoring wells to determine groundwater flow direction and gradient. Collected groundwater samples will be analyzed for TPHg, BTXE, five-fuel oxygenates, TPHd, and TPHmo.
- SounPacific is initiating the approved work plan in April 2006, which includes the installation of additional downgradient borings, an offsite downgradient monitoring well, and a monitoring well to replace the destroyed well MW-5. At the current time, SounPacific is in the process of obtaining site access from adjacent property owners.
- Although, the excavation of contaminated soil has removed a source of groundwater contamination, however, groundwater contaminant levels onsite are at a level which requires remedial action. SounPacific is currently conducting interior evaluation of groundwater remedial alternatives, which will be incorporated in the RoF and Corrective Action Plan that is following the installation of replacement well for MW-5.

CERTIFICATION

This report was prepared under the direct supervision of a California registered geologist at SounPacific. All information provided in this report including statements, conclusions and recommendations are based solely upon field observations and analyses performed by a state-certified laboratory. SounPacific is not responsible for laboratory errors.

SounPacific promises to perform all its work in a manner that is currently used by members in similar professions working in the same geographic area. SounPacific will do whatever is reasonable to ensure that data collection is accurate. Please note however, that rain, buried utilities, and other factors can influence groundwater depths, directions and other factors beyond what SounPacific could reasonably determine.

SounPacific

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ATTACHMENTS

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APPENDICES

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Tables & Chart

Table 1
Soil Analytical Results
 McKinleyville 76
 2698 Central Avenue
 McKinleyville, California 95519

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	DIPE (ppm)	TAME (ppm)	ETBE (ppm)	TBA (ppm)	TPHd (ppm)	TPHmo (ppm)	Total Lead (ppm)	TOG (ppm)	Cr (ppm)	Zn (ppm)
McK-1	Waste Oil UST	12/12/1995	5,600	7.3	15	550	78	-----	-----	-----	-----	-----	ND < 10	1,900	23	2,900	65	25
B-1 @ 3.5'	B-1	3/25/1997	36	0.018	0.18	1.32	0.21	ND < 0.10	-----	-----	-----	-----	1.7	14	2.8	-----	-----	-----
B-2 @ 3.5'	B-2	3/25/1997	1.7	0.021	ND < 0.02	.022	0.025	ND < 0.05	-----	-----	-----	-----	ND < 10	170	3.3	-----	-----	-----
B-3 @ 3.5'	B-3	3/25/1997	3	0.012	ND < 0.03	ND < 1.0	ND < 0.05	ND < 0.05	-----	-----	-----	-----	ND < 10	240	16	-----	-----	-----
B-4 @ 3.5'	B-4	3/25/1997	110	0.21	ND < 0.50	0.63	0.75	ND < 0.25	-----	-----	-----	-----	32	210	52	-----	-----	-----
B-5 @ 3.5'	B-5	3/25/1997	8,400	72	340	580	100	ND < 50	-----	-----	-----	-----	830	23	8.8	-----	-----	-----
MW-1 @ 3.5'	MW-1	3/25/1997	ND < 1.0	0.0072	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	2.8	-----	-----	-----
MW-2 @ 3.0'	MW-2	3/25/1997	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	5.3	-----	-----	-----
MW-3 @ 4.5'	MW-3	3/25/1997	360	0.14	ND < 0.005	1.9	1.4	ND < 0.05	-----	-----	-----	-----	11	28	6.5	-----	-----	-----
B-6 @ 5'	B-6	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
B-6 @ 10'	B-6	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
B-7 @ 5'	B-7	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	7.3	19	-----	-----	-----	-----
B-7 @ 10'	B-7	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
B-8 @ 5'	B-8	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
B-8 @ 10'	B-8	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
B-9 @ 5'	B-9	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
B-9 @ 10'	B-9	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	0.24	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
B-10 @ 5'	B-10	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
B-10 @ 10'	B-10	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
B-11 @ 5'	B-11	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
B-11 @ 11'	B-11	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
B-12 @ 5'	B-12	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
B-12 @ 10'	B-12	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
B-13 @ 5'	B-13	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
B-13 @ 10'	B-13	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
B-14 @ 5'	B-14	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
B-14 @ 10'	B-14	10/25/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	-----	-----	-----	-----	ND < 1.0	ND < 10	-----	-----	-----	-----
SB-18 @ 4'	B-18	6/17/2002	ND < 0.06	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 10	ND < 10	-----	-----	-----	-----
SB-18 @ 8'	B-18	6/17/2002	ND < 0.06	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 10	ND < 10	-----	-----	-----	-----
MW-4 @ 8'	MW-4	6/17/2002	ND < 0.06	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5	ND < 10	25.4	-----	-----	-----	-----
MW-5 @ 4'	MW-5	6/17/2002	150	1.47	11.3	15.3	4.7	ND < 1	ND < 1	ND < 1	ND < 1	ND < 1000	107	ND < 10	-----	-----	-----	-----
MW-5 @ 8'	MW-5	6/17/2002	59.3	ND < 1	5.12	9.92	1.89	7.61	ND < 1	ND < 1	ND < 1	ND < 1000	121	ND < 10	-----	-----	-----	-----

Notes:

TPHg: Total petroleum hydrocarbons as gasoline.
 MTBE: Methyl tertiary butyl ether
 DIPE: Diisopropyl ether
 TAME: Tertiary amyl methyl ether
 ETBE: Ethyl tertiary butyl ether
 TBA: Tertiary butanol
 TPHd: Total petroleum hydrocarbons as diesel.

TPHmo: Total petroleum hydrocarbons as motor oil.
 TOG: Total oil & grease
 Cr: Chromium
 Zn: Zinc
 ppm: parts per million = µg/g = mg/kg = 1000 µg/kg
 ND: Not detected. Results were reported below the method detection limit as shown.

Table 1 (cont.)
Soil Analytical Results
 McKinleyville 76
 2698 Central Avenue
 McKinleyville, California 95519

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	DIPE (ppm)	TAME (ppm)	ETBE (ppm)	TBA (ppm)	TPHd (ppm)	Total Lead (ppm)
McK 76-2	Test Pit	10/6/2003	ND < 1.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	ND < 1.0	-----
DI-1	Sidewall	12/22/2003	3,500	40	410	680	110	31	ND < 5.0	15	ND < 5.0	ND < 50	-----	110
DI-2	Sidewall	12/22/2003	15,000	84	340	1,300	200	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 50	-----	14
DI-3	Sidewall	12/22/2003	490	1.5	1.7	3.3	2.0	ND < 0.1	ND < 0.1	ND < 0.1	ND < 0.1	ND < 1.0	-----	27
DI-4	Sidewall	12/22/2003	430	1.0	2.5	4.0	7.8	0.25	ND < 0.25	ND < 0.25	ND < 0.25	ND < 2.5	-----	16
DI-5	Sidewall	12/22/2003	2,700	20	96	270	55	2.6	ND < 2.5	ND < 2.5	ND < 2.5	ND < 25	-----	6.7
SB-19 @ 4'	B-19	9/23/2004	1.9	0.15	0.011	0.039	0.039	0.51	ND < 0.006	ND < 0.006	ND < 0.006	0.14	----	----
SB-19 @ 8'	B-19	9/23/2004	ND < 70	3.6	3.7	2.41	ND < 0.70	6.2	ND < 0.70	ND < 0.70	ND < 0.70	ND < 7.0	----	----
SB-19 @ 10'	B-19	9/23/2004	2.4	0.20	0.047	0.071	0.041	1.6	ND < 0.005	0.16	ND < 0.005	0.94	----	----
SB-20 @ 4'	B-20	9/22/2004	1,800	15	86	154	33	6.6	ND < 0.59	ND < 0.59	ND < 0.59	ND < 5.9	----	----
SB-20 @ 8'	B-20	9/22/2004	5.3	0.11	0.19	0.58	0.14	0.12	ND < 0.006	ND < 0.006	ND < 0.006	ND < 0.06	----	----
SB-20 @ 10'	B-20	9/22/2004	5.9	0.046	0.19	0.45	0.11	0.051	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	----	----
SB-21 @ 4'	B-21	9/22/2004	3,600	25	210	348	72	2.5	ND < 0.58	ND < 0.58	ND < 0.58	ND < 5.8	----	----
SB-21 @ 8'	B-21	9/22/2004	800	0.71	5.2	74	21	ND < 0.51	ND < 0.51	ND < 0.51	ND < 0.51	ND < 5.1	----	----
SB-21 @ 10'	B-21	9/22/2004	2.6	0.042	0.12	0.312	0.11	0.11	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	----	----
SB-22 @ 4'	B-22	9/22/2004	570	ND < 0.60	1.7	49.4	11	ND < 0.60	ND < 0.60	ND < 0.60	ND < 0.60	ND < 6.0	----	----
SB-22 @ 8'	B-22	9/22/2004	32	ND < 0.005	0.044	1.80	0.41	0.007	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	----	----
SB-22 @ 10'	B-22	9/22/2004	2.2	ND < 0.006	0.008	0.194	0.045	0.009	ND < 0.006	ND < 0.006	ND < 0.006	ND < 0.06	----	----
TE-1NP	Ust Pit	12/11/2003	70	ND < 0.25	0.39	ND < 0.5	0.66	0.66	ND < 0.25	ND < 0.25	ND < 0.25	ND < 2.5	----	----
TE-2NM	Ust Pit	12/11/2003	2,500	ND < 2.5	16	63.5	26	ND < 2.5	ND < 2.5	ND < 2.5	ND < 2.5	ND < 25	----	8.7
TE-3NR	Ust Pit	12/11/2003	6,900	ND < 2.5	ND < 2.5	41	35	ND < 2.5	ND < 2.5	ND < 2.5	ND < 2.5	ND < 25	----	----
TE-4SR	Ust Pit	12/11/2003	9,200	2.5	6,300	238	67	0.007	ND < 2.5	ND < 2.5	ND < 2.5	ND < 25	----	----
TEPW-5	Ust Pit	12/12/2003	4,400,000	800	120,000	3,170	780	3,200	ND < 500	ND < 500	ND < 500	ND < 5,000	----	----

Notes:

TPHg: Total petroleum hydrocarbons as gasoline.

MTBE: Methyl tertiary butyl ether

DIPE: Diisopropyl ether

TAME: Tertiary amyl methyl ether

ETBE: Ethyl tertiary butyl ether

TBA: Tertiary butanol

TPHd: Total petroleum hydrocarbons as diesel.

TPHmo: Total petroleum hydrocarbons as motor oil.

ppm: parts per million = µg/g = mg/kg = 1000 µg/kg

ND: Not detected. Results were reported below the method detection limit as shown.

Table 1 (cont.)
Soil Analytical Results
McKinleyville 76
2698 Central Avenue
McKinleyville, California 95519

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	DIPE (ppm)	TAME (ppm)	ETBE (ppm)	TBA (ppm)
SB-23 @ 4'	B-23	9/22/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	0.006	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-23 @ 8'	B-23	9/22/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-23 @ 10'	B-23	9/22/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-24 @ 4'	B-24	9/22/2004	1.3	0.015	ND < 0.005	ND < 0.015	0.005	0.084	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-24 @ 8'	B-24	9/22/2004	ND < 1.0	ND < 0.006	ND < 0.006	ND < 0.018	ND < 0.006	ND < 0.006	ND < 0.006	ND < 0.006	ND < 0.006	ND < 0.06
SB-24 @ 10'	B-24	9/22/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-25 @ 4'	B-25	9/23/2004	ND < 1.0	0.009	ND < 0.006	ND < 0.018	ND < 0.006	0.17	ND < 0.006	ND < 0.006	ND < 0.006	ND < 0.06
SB-25 @ 8'	B-25	9/23/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	0.014	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-25 @ 10'	B-25	9/23/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-26 @ 4'	B-26	9/23/2004	1,700	1.1	2.7	77	19	ND < 0.61	ND < 0.61	ND < 0.61	ND < 0.61	ND < 6.1
SB-26 @ 8'	B-26	9/23/2004	5.1	0.041	0.010	0.294	0.13	0.028	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-26 @ 10'	B-26	9/23/2004	ND < 1.0	ND < 0.005	ND < 0.005	0.031	0.009	0.061	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-27 @ 4'	B-27	9/23/2004	1,700	ND < 0.63	ND < 0.63	33.4	14	ND < 0.63	ND < 0.63	ND < 0.63	ND < 0.63	ND < 6.3
SB-27 @ 8'	B-27	9/23/2004	ND < 1.0	ND < 0.005	ND < 0.005	0.016	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-27 @ 10'	B-27	9/23/2004	1.6	ND < 0.005	ND < 0.005	0.097	0.019	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-28 @ 4'	B-28	9/23/2004	80	ND < 0.14	ND < 0.14	ND < 0.41	ND < 0.14	ND < 0.14	ND < 0.14	ND < 0.14	ND < 0.14	ND < 1.4
SB-28 @ 8'	B-28	9/23/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-28 @ 10'	B-28	9/23/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-29 @ 4'	B-29	9/27/2004	290	ND < 0.60	ND < 0.60	5.5	2.6	ND < 0.60	ND < 0.60	ND < 0.60	ND < 0.60	ND < 6.0
SB-29 @ 8'	B-29	9/27/2004	1.6	0.007	ND < 0.005	0.047	0.026	0.028	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-29 @ 10'	B-29	9/27/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	0.025	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-30 @ 4'	B-30	9/27/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-30 @ 8'	B-30	9/27/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05
SB-30 @ 10'	B-30	9/27/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05

Notes:

TPHg: Total petroleum hydrocarbons as gasoline.
MTBE: Methyl tertiary butyl ether
DIPE: Diisopropyl ether
TAME: Tertiary amyl methyl ether

ETBE: Ethyl tertiary butyl ether
TBA: Tertiary butanol
ppm: parts per million = $\mu\text{g/g} = \text{mg/kg} = 1000 \mu\text{g/kg}$
ND: Not detected. Results were reported below the method detection limit as shown.

Table 1 (cont.)
Soil Analytical Results
 McKinleyville 76
 2698 Central Avenue
 McKinleyville, California 95519

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	DIPE (ppm)	TAME (ppm)	ETBE (ppm)	TBA (ppm)	TPHd (ppm)	TPHmo (ppm)
15T @ 4'	15T	12/1/2004	5,280	ND < 20	264	299	53.4	ND < 20	ND < 20	ND < 20	ND < 20	ND < 200	316	30
16T @ 4'	16T	12/1/2004	3,790	ND < 20	248	152	26.9	ND < 20	ND < 20	ND < 20	ND < 20	ND < 200	198	34
17T @ 4'	17T	12/1/2004	4,270	ND < 20	162	334	60.1	ND < 20	ND < 20	ND < 20	ND < 20	ND < 200	241	36
18T @ 4'	18T	12/1/2004	842	ND < 25	36.8	135	26.6	12	ND < 25	ND < 25	ND < 25	ND < 250	128	ND < 20
1B @ 8'	1B	12/2/2004	5,100	20.1	231	452	84.6	22.6	ND < 20	ND < 20	ND < 20	ND < 200	357	ND < 40
2B @ 8'	2B	12/2/2004	3,140	ND < 12.5	119	291	52.6	15.2	ND < 12.5	ND < 12.5	ND < 12.5	ND < 125	164	22
3B @ 8'	3B	12/2/2004	0.106	ND < 0.005	0.021	ND < 0.015	ND < 0.005	0.006	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	ND < 15	ND < 15
4B @ 8'	4B	12/2/2004	21.4	1.14	2.04	ND 0.015	ND < 0.005	2.07	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	ND < 10	ND < 10
5B @ 11'	5B	12/3/2004	246	ND < 8	4.26	17.9	3.05	ND < 8	ND < 8	ND < 8	ND < 8	ND < 80	42	ND < 20
6B @ 11'	6B	12/3/2004	ND < 0.06	ND < 0.005	0.014	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	ND < 10	ND < 10
7SW @ 5'	7SW	12/2/2004	4,430	56.8	355	618	119	75.2	ND < 25	ND < 25	ND < 25	ND < 250	393	ND < 40
Mck76SW8 @ 7'	8SW	12/2/2004	ND < 1.0	0.055	0.013	0.016	0.012	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	1.2	ND < 10
9SW @ 5'	9SW	12/2/2004	1,400	ND < 5	ND < 5	66.2	18.2	ND < 5	ND < 5	ND < 5	ND < 5	ND < 50	31	ND < 20
10SW @ 5'	10SW	12/3/2004	4.17	ND < 0.025	ND < 0.025	ND < 0.075	ND < 0.025	ND < 0.025	ND < 0.025	ND < 0.025	ND < 0.025	ND < 0.25	ND < 10	13
11SW @ 8'	11SW	12/3/2004	ND < 0.06	ND < 0.005	ND < 0.005	0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	ND < 10	ND < 10
Mck76SW12 @ 8'	12SW	12/3/2004	ND < 1.0	ND < 0.005	0.02	0.086	0.024	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	1.3	ND < 10
13SW @ 7'	13SW	12/3/2004	1,860	ND < 6.66	21.1	121	22.4	ND < 6.66	ND < 6.66	ND < 6.66	ND < 6.66	ND < 66.6	61	ND < 20
14SW @ 5'	14SW	12/3/2004	6,170	156	1,380	ND < 150	ND < 50	93.6	ND < 50	ND < 50	ND < 50	ND < 500	1,750	ND < 200

Notes:

TPHg: Total petroleum hydrocarbons as gasoline.

MTBE: Methyl tertiary butyl ether

DIPE: Diisopropyl ether

TAME: Tertiary amyl methyl ether

ETBE: Ethyl tertiary butyl ether

TBA: Tertiary butanol

TPHd: Total petroleum hydrocarbons as diesel.

TPHmo: Total petroleum hydrocarbons as motor oil.

ppm: parts per million = µg/g = mg/kg = 1000 µg/kg

ND: Not detected. Results were reported below the method detection limit as shown.

Table 2
Groundwater Analytical Results from Boreholes
McKinleyville 76
2698 Central Avenue
McKinleyville, California 95519

Sample ID	Sample Location	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)	TOG (ppb)	Total Lead (ppb)	Cr (ppb)	Zn (ppb)
McK-2	Waste Oil UST	12/12/1996	32,000	2,400	270	5,000,000	2,400	----	----	----	----	----	ND < 10	31,000	0.064	500	150	160
B-6	B-6	10/25/2000	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 3.0	----	----	----	----	ND < 50	ND < 170	----	----	----	----
B-7	B-7	10/25/2000	ND < 50	0.52	ND < 0.5	ND < 0.5	ND < 0.5	ND < 3.0	----	----	----	----	ND < 50	ND < 170	----	----	----	----
B-8	B-8	10/25/2000	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 3.0	----	----	----	----	ND < 50	ND < 170	----	----	----	----
B-9	B-9	10/25/2000	4,000	180	ND < 3.0	ND < 2.0	ND < 2.0	3,200	----	----	----	----	52	ND < 170	----	----	----	----
B-10	B-10	10/25/2000	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 3.0	----	----	----	----	ND < 50	ND < 170	----	----	----	----
B-11	B-11	10/25/2000	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	9.4	----	----	----	----	ND < 50	ND < 170	----	----	----	----
B-12	B-12	10/25/2000	270	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	400	----	----	----	----	ND < 50	ND < 170	----	----	----	----
B-13	B-13	10/25/2000	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	11	----	----	----	----	ND < 50	ND < 170	----	----	----	----
B-14	B-14	10/25/2000	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 3.0	----	----	----	----	ND < 50	ND < 170	----	----	----	----
B-15	B-15	4/24/2002	ND < 50	ND < 0.3	6.4	ND < 0.6	ND < 0.3	ND < 2	ND < 0.5	ND < 0.5	ND < 0.5	ND < 100	ND < 50	ND < 50	----	----	----	----
B-16	B-16	4/24/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	ND < 2	ND < 0.5	ND < 0.5	ND < 0.5	ND < 100	ND < 50	ND < 50	----	----	----	----
B-17	B-17	4/24/2002	70	ND < 0.3	4.6	ND < 0.6	ND < 0.3	39.4	ND < 0.5	18.1	ND < 0.5	ND < 100	ND < 50	ND < 50	----	----	----	----
SBGW-18 @ 6.1'	B-18	6/17/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	9.9	ND < 0.5	ND < 0.5	ND < 0.5	ND < 100	ND < 50	ND < 50	----	----	----	----
McK 76-1	Test pit	10/6/2003	29,000	----	----	----	----	----	----	----	----	----	2,200	----	----	----	----	----
MCK 76 WT17	Water Tank	10/29/2003	160	1.3	ND < 0.5	3.7	2.2	270	ND < 5.0	ND < 5.0	ND < 5.0	ND < 50	ND < 50	----	----	----	----	----
PIT H2O	Excavated Pit	12/3/2004	15,000,000	61,000	1,500,000	2,060,000	330,000	1,900,000	ND < 10,000	48,000	ND < 10,000	ND < 100,000	25,000	3,100	----	----	----	----

Notes:

TPHg: Total petroleum hydrocarbons as gasoline.

MTBE: Methyl tertiary butyl ether

DIPE: Diisopropyl ether

TAME: Tertiary amyl methyl ether

ETBE: Ethyl tertiary butyl ether

TBA: Tertiary butanol

TPHd: Total petroleum hydrocarbons as diesel.

TPHmo: Total petroleum hydrocarbons as motor oil.

TOG: Total oil & grease

Cr: Chromium

Zn: Zinc

ppb: parts per billion = µg/l = .001 mg/l = 0.001 ppm.

ND: Not detected. Results were reported below the method detection limit as shown.

Table 3
Water Levels
McKinleyville 76
2698 Central Avenue
McKinleyville, California 95519

Sample Location	Date	Depth to Bottom/ Feet BToC	Survey Height/ Feet AMSL	Depth to Water/ Feet BToC	Adjusted Elevation/ Feet AMSL
MW-1	6/25/2002	12.52	114.23	5.39	108.84
	7/25/2002	12.51	114.23	6.21	108.02
	8/14/2002	12.51	114.23	6.56	107.67
	9/16/2002	12.49	114.23	6.92	107.31
	10/21/2002	12.53	114.23	7.26	106.97
	11/21/2002	11.26	114.23	6.54	107.69
	12/21/2002	12.48	114.23	2.01	112.22
	1/22/2003	11.54	114.23	2.88	111.35
	2/26/2003	12.51	114.23	2.90	111.33
	3/28/2003	12.51	114.23	2.28	111.95
	4/28/2003	12.51	114.23	1.70	112.53
	5/28/2003	12.51	114.23	3.99	110.24
	6/27/2003	12.63	114.23	5.10	109.13
	9/25/2003	12.63	114.23	6.59	107.64
	12/29/2003	12.63	114.23	1.22	113.01
	3/30/2004	12.63	114.23	2.80	111.43
	6/28/2004	12.60	114.23	5.68	108.55
	9/30/2004	12.60	114.23	7.06	107.17
	12/20/2004	12.55	114.23	3.41	110.82
	4/5/2005	12.55	114.23	2.23	112.00
	6/22/2005	12.51	114.23	2.90	111.33
	9/30/2005	12.51	114.23	6.21	108.02
	12/18/2005	12.50	114.23	2.70	111.53
	3/1/2006	12.48	114.23	1.95	112.28
MW-2	6/25/2002	13.41	113.81	4.75	109.06
	7/25/2002	13.43	113.81	5.62	108.19
	8/14/2002	13.42	113.81	6.02	107.79
	9/16/2002	13.42	113.81	6.38	107.43
	10/21/2002	13.39	113.81	6.71	107.10
	11/21/2002	12.54	113.81	6.08	107.73
	12/21/2002	13.49	113.81	1.42	112.39
	1/22/2003	12.71	113.81	2.50	111.31
	2/26/2003	13.24	113.81	2.35	111.46
	3/28/2003	13.24	113.81	1.76	112.05
	4/28/2003	13.24	113.81	1.27	112.54
	5/28/2003	13.24	113.81	3.44	110.37
	6/27/2003	13.57	113.81	4.50	109.31
	9/25/2003	13.57	113.81	6.02	107.79
	12/29/2003	NT	113.81	NT	NT
	3/30/2004	13.57	113.81	2.09	111.72
	6/28/2004	13.37	113.81	5.06	108.75
	9/30/2004	13.20	113.81	6.49	107.32
	12/20/2004	13.15	113.81	2.61	111.20
	4/5/2005	12.97	113.81	1.64	112.17
	6/22/2005	13.05	113.81	2.25	111.56
	9/30/2005	12.82	113.81	5.57	108.24
	12/18/2005	12.66	113.81	2.06	111.75
	3/1/2006	12.48	113.81	1.38	112.43

Table 3 (cont.)
Water Levels
 McKinleyville 76
 2698 Central Avenue
 McKinleyville, California 95519

Sample Location	Date	Depth to Bottom/ Feet BToC	Survey Height/ Feet AMSL	Depth to Water/ Feet BToC	Adjusted Elevation/ Feet AMSL
MW-3	6/25/2002	11.28	114.78	5.81	108.97
	7/25/2002	13.22	114.78	7.64	107.14
	8/14/2002	13.24	114.78	7.48	107.30
	9/16/2002	13.26	114.78	7.39	107.39
	10/21/2002	11.24	114.78	7.76	107.02
	11/21/2002	13.31	114.78	5.45	109.33
	12/21/2002	11.18	114.78	2.33	112.45
	1/22/2003	13.52	114.78	1.95	112.83
	2/26/2003	11.31	114.78	3.27	111.51
	3/28/2003	11.31	114.78	2.59	112.19
	4/28/2003	11.31	114.78	2.05	112.73
	5/28/2003	11.31	114.78	4.42	110.36
	6/27/2003	11.33	114.78	5.51	109.27
	9/25/2003	11.33	114.78	7.03	107.75
	12/29/2003	11.33	114.78	1.50	113.28
	3/30/2004	11.33	114.78	3.18	111.60
	6/28/2004	11.30	114.78	6.09	108.69
	9/30/2004	11.25	114.78	7.55	107.23
	12/20/2004	11.26	114.78	3.56	111.22
	4/5/2005	11.21	114.78	2.54	112.24
	6/22/2005	11.21	114.78	3.22	111.56
	9/30/2005	11.20	114.78	6.61	108.17
	12/18/2005	11.15	114.78	3.04	111.74
	3/1/2006	11.13	114.78	2.30	112.48
MW-4	6/25/2002	12.34	115.18	6.31	108.87
	7/25/2002	12.32	115.18	7.10	108.08
	8/14/2002	12.32	115.18	7.52	107.66
	9/16/2002	12.31	115.18	7.85	107.33
	10/21/2002	12.31	115.18	8.21	106.97
	11/21/2002	12.32	115.18	7.05	108.13
	12/21/2002	12.22	115.18	2.69	112.49
	1/22/2003	12.57	115.18	3.27	111.91
	2/26/2003	12.29	115.18	3.71	111.47
	3/28/2003	12.29	115.18	3.02	112.16
	4/28/2003	12.29	115.18	2.41	112.77
	5/28/2003	12.29	115.18	4.88	110.30
	6/27/2003	12.38	115.18	5.99	109.19
	9/25/2003	12.38	115.18	7.50	107.68
	12/29/2003	12.38	115.18	1.78	113.40
	3/30/2004	12.38	115.18	3.60	111.58
	6/28/2004	12.33	115.18	6.59	108.59
	9/30/2004	12.25	115.18	8.00	107.18
	12/20/2004	12.23	115.18	4.24	110.94
	4/5/2005	12.20	115.18	2.95	112.23
	6/22/2005	12.20	115.18	3.70	111.48
	9/30/2005	12.21	115.18	7.11	108.07
	12/18/2005	12.18	115.18	3.48	111.70
	3/1/2006	12.18	115.18	2.60	112.58

Table 3 (cont.)**Water Levels**

McKinleyville 76

2698 Central Avenue

McKinleyville, California 95519

Sample Location	Date	Depth to Bottom/ Feet BToC	Survey Height/ Feet AMSL	Depth to Water/ Feet BToC	Adjusted Elevation/ Feet AMSL
MW-5	6/25/2002	12.42	114.47	5.48	108.99
	7/25/2002	12.39	114.47	6.35	108.12
	8/14/2002	12.39	114.47	7.12	107.35
	9/16/2002	12.40	114.47	7.12	107.35
	10/21/2002	12.41	114.47	7.49	106.98
	11/21/2002	12.43	114.47	6.36	108.11
	12/21/2002	12.36	114.47	2.11	112.36
	1/22/2003	12.41	114.47	2.59	111.88
	2/26/2003	12.45	114.47	3.00	111.47
	3/28/2003	12.45	114.47	2.36	112.11
	4/28/2003	12.45	114.47	1.84	112.63
	5/28/2003	12.45	114.47	4.11	110.36
	6/27/2003	12.57	114.47	5.21	109.26
	9/25/2003	12.57	114.47	6.71	107.76
MW-6	6/25/2002	12.31	114.70	5.86	108.84
	7/25/2002	12.26	114.70	6.65	108.05
	8/14/2002	12.27	114.70	6.97	107.73
	9/16/2002	12.27	114.70	7.40	107.30
	10/21/2002	12.26	114.70	7.74	106.96
	11/21/2002	12.23	114.70	6.58	108.12
	12/21/2002	12.16	114.70	2.39	112.31
	1/22/2003	12.44	114.70	2.87	111.83
	2/26/2003	12.21	114.70	3.29	111.41
	3/28/2003	12.21	114.70	2.68	112.02
	4/28/2003	12.21	114.70	2.07	112.63
	5/28/2003	12.21	114.70	4.45	110.25
	6/27/2003	12.36	114.70	5.56	109.14
	9/25/2003	12.36	114.70	7.05	107.65
	12/29/2003	12.36	114.70	1.54	113.16
	3/30/2004	12.36	114.70	3.22	111.48
	6/28/2004	12.27	114.70	6.13	108.57
	9/30/2004	12.23	114.70	7.54	107.16
	12/20/2004	12.21	114.70	3.86	110.84
	4/5/2005	12.19	114.70	2.62	112.08
	6/22/2005	12.20	114.70	3.33	111.37
	9/30/2005	12.22	114.70	6.67	108.03
	12/18/2005	12.28	114.70	3.09	111.61
	3/1/2006	12.18	114.70	2.32	112.38

Notes:

AMSL: Above mean sea level

BToC: Below top of casing

Table 4
Groundwater Analytical Results from Monitoring Wells
 McKinleyville 76
 2698 Central Avenue
 McKinleyville, California 95519

Sample Location	Sample Event	Annual Quarter	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)
MW-1	Well Installation	Second Quarter	6/25/2002	23,000	230	ND < 0.3	1.4	0.7	45,400	ND < 0.5	58	ND < 0.5	ND < 100	676	600
	First Quarterly	Third Quarter	9/16/2002	30,600	89.4	ND < 0.3	1.3	1.3	130,000	ND < 0.5	43.4	ND < 0.5	ND < 100	722	ND < 50
	Second Quarterly	Fourth Quarter	#####	ND < 50	ND < 50	ND < 50	ND < 100	ND < 50	7,600	ND < 50	ND < 50	ND < 50	ND < 500	ND < 50	ND < 500
	Third Quarterly	First Quarter	3/28/2003	4,200	1,200	ND < 50	ND < 100	ND < 50	33,000	ND < 50	ND < 50	ND < 50	ND < 500	440	ND < 500
	Fourth Quarterly	Second Quarter	6/27/2003	37,000	4,000	ND < 500	ND < 1,000	ND < 500	81,000	ND < 500	ND < 500	ND < 500	ND < 5,000	120	ND < 500
	Fifth Quarterly	Third Quarter	9/25/2003	ND < 40,000	23,000	ND < 500	ND < 1,000	ND < 500	72,000	ND < 500	ND < 500	ND < 500	ND < 5,000	900	ND < 500
	Sixth Quarterly	Fourth Quarter	#####	2,800	ND < 500	ND < 500	ND < 1,000	ND < 500	31,000	ND < 500	ND < 500	ND < 500	ND < 5,000	120	ND < 500
	Seventh Quarterly	First Quarter	3/30/2004	29,000	ND < 50	ND < 50	ND < 100	ND < 50	65,000	ND < 50	150	ND < 50	23,000	750	ND < 500
	Eighth Quarterly	Second Quarter	6/28/2004	44,000	2,100	ND < 50	ND < 100	ND < 50	100,000	ND < 50	130	ND < 50	ND < 500	870	ND < 500
	Ninth Quarterly	Third Quarter	9/30/2004	24,000	670	ND < 50	ND < 150	ND < 50	50,000	ND < 50	61	ND < 50	ND < 500	370	ND < 500
	Tenth Quarterly	Fourth Quarter	#####	ND < 2,000	ND < 20.0	ND < 20.0	ND < 40.0	ND < 20.0	2,080	ND < 20.0	ND < 200	ND < 200	ND < 2,000	103	122
	Eleventh Quarterly	First Quarter	4/5/2005	6,810	ND < 12.5	ND < 12.5	ND < 25.0	ND < 12.5	8,110	ND < 12.5	31.8	ND < 12.5	ND < 1,250	74	106
	Twelfth Quarterly	Second Quarter	6/22/2005	11,000	ND < 50	ND < 50	ND < 100	ND < 50	15,700	ND < 50	ND < 50	ND < 50	ND < 5,000	159	189
	Thirteenth Quarterly	Third Quarter	9/30/2005	21,200	ND < 50.0	ND < 50.0	ND < 100	ND < 50.0	24,000	ND < 50.0	79.0	ND < 50.0	ND < 5,000	114	70
	Fourteenth Quarterly	Fourth Quarter	#####	13,900	ND < 100	ND < 100	ND < 200	ND < 100	22,500	ND < 100	ND < 100	ND < 100	ND < 10,000	188	201
	Fifteenth Quarterly	First Quarter	3/1/2006	12,500	ND < 62.5	ND < 62.5	ND < 125	ND < 62.5	24,800	ND < 62.5	ND < 62.5	ND < 62.5	ND < 6,250	177	119
MW-2	Well Installation	Second Quarter	6/25/2002	4,650	255	108	1,010	289	108	ND < 0.5	ND < 0.5	ND < 0.5	ND < 100	883	596
	First Quarterly	Third Quarter	9/16/2002	886	91.4	23.5	162	15.4	17.1	ND < 0.5	ND < 0.5	ND < 0.5	ND < 100	382	ND < 50
	Second Quarterly	Fourth Quarter	#####	220	12	3.6	11.3	0.6	ND < 0.5	ND < 50	ND < 0.5	ND < 0.5	ND < 5.0	85	ND < 500
	Third Quarterly	First Quarter	3/28/2003	92	12	1.1	1.2	ND < 0.5	4.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Fourth Quarterly	Second Quarter	6/27/2003	1,700	190	36	189.7	100	16	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	330	ND < 500
	Fifth Quarterly	Third Quarter	9/25/2003	850	46	ND < 5.0	12	ND < 5.0	10	ND < 5.0	ND < 5.0	ND < 5.0	ND < 50	320	ND < 500
	Sixth Quarterly	Fourth Quarter	#####	----	----	----	----	----	----	----	----	----	----	----	----
	Seventh Quarterly	First Quarter	3/30/2004	140	14	0.5	0.8	ND < 0.5	12	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	110	ND < 500
	Eighth Quarterly	Second Quarter	6/28/2004	2,900	100	22	252	52	71	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	750	ND < 500
	Ninth Quarterly	Third Quarter	9/30/2004	790	29	ND < 5.0	25	ND < 5.0	26	ND < 5	ND < 5	ND < 5	ND < 50	170	ND < 500
	Tenth Quarterly	Fourth Quarter	#####	2,990	91.4	89.1	394	178	615	ND < 4.0	ND < 40.0	ND < 40.0	ND < 400	642	ND < 50
	Eleventh Quarterly	First Quarter	4/5/2005	337	7.7	ND < 0.5	ND < 1.0	ND < 0.5	27.6	ND < 0.5	1.2	ND < 0.5	ND < 50	ND < 50	55
	Twelfth Quarterly	Second Quarter	6/22/2005	518	32.8	0.8	1.7	ND < 0.5	129	ND < 0.5	5.3	ND < 0.5	ND < 50	85	ND < 50
	Thirteenth Quarterly	Third Quarter	9/30/2005	1,020	39.0	3.3	22.4	7.6	117	ND < 0.5	5.3	ND < 0.5	ND < 50.0	333	ND < 50
	Fourteenth Quarterly	Fourth Quarter	#####	278	12.7	0.9	4.6	4.1	55.3	ND < 0.5	2.4	ND < 0.5	ND < 50.0	101	92
	Fifteenth Quarterly	First Quarter	3/1/2006	316	14.7	1.3	12.6	10.8	59.1	ND < 0.5	3.2	ND < 0.5	ND < 50.0	ND < 50	ND < 50

Table 4 (cont.)
Groundwater Analytical Results from Monitoring Wells
McKinleyville 76
2698 Central Avenue
McKinleyville, California 95519

Sample Location	Sample Event	Annual Quarter	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)
MW-3	Well Installation	Second Quarter	6/25/2002	11,600	1,530	84.6	126	520	7,320	ND < 0.5	720	ND < 0.5	ND < 100	2,420	597
	First Quarterly	Third Quarter	9/16/2002	9,210	1,140	93.4	77	405	5,160	ND < 0.5	578	ND < 0.5	ND < 100	3500	ND < 50
	Second Quarterly	Fourth Quarter	12/21/2002	24,000	1,200	180	1,337	960	12,000	ND < 50	750	ND < 50	ND < 500	1300	ND < 500
	Third Quarterly	First Quarter	3/28/2003	7,800	860	ND < 50	ND < 100	88	6,100	ND < 50	410	ND < 50	ND < 500	4,000	ND < 500
	Fourth Quarterly	Second Quarter	6/27/2003	12,000	750	ND < 50	ND < 100	190	3,100	ND < 50	190	ND < 50	ND < 500	5,100	ND < 500
	Fifth Quarterly	Third Quarter	9/25/2003	17,000	1,200	79	54	330	2,100	ND < 50	280	ND < 50	ND < 500	7,200	ND < 500
	Sixth Quarterly	Fourth Quarter	12/29/2003	17,000	1,700	120	170	1,200	6,000	ND < 50	540	ND < 50	2,700	ND < 50	ND < 500
	Seventh Quarterly	First Quarter	3/30/2004	15,000	810	43	34	300	1,600	ND < 5.0	200	ND < 5.0	1,500	7,300	ND < 500
	Eighth Quarterly	Second Quarter	6/28/2004	14,000	720	72	64	370	600	ND < 50	90	ND < 50	ND < 500	7,000	ND < 500
	Ninth Quarterly	Third Quarter	9/30/2004	9,300	660	62	37	190	790	ND < 0.5	69	ND < 0.5	600	3,000	ND < 500
	Tenth Quarterly	Fourth Quarter	12/20/2004	7,980	528	64.8	82.8	628	1,280	ND < 10.0	124	ND < 100	ND < 1,000	5,910	250
	Eleventh Quarterly	First Quarter	4/5/2005	8,190	347	31.8	21.4	201	1,440	ND < 10.0	116	ND < 10	ND < 1,000	5,860	ND < 150
	Twelfth Quarterly	Second Quarter	6/22/2005	4,800	280	25.1	15.6	142	489	ND < 2.5	48.7	ND < 2.5	301	5,700	336
	Thirteenth Quarterly	Third Quarter	9/30/2005	6,910	279	46.8	35.9	244	108	ND < 2.5	15.6	ND < 2.5	ND < 250	3,050	147
	Fourteenth Quarterly	Fourth Quarter	12/18/2005	4,080	129	16.6	17.7	94.1	386	ND < 2.0	29.9	ND < 2.0	ND < 200	2,500	322
	Fifteenth Quarterly	First Quarter	3/1/2006	5,750	189	15.1	17.8	45.6	562	ND < 2.5	46.2	ND < 2.5	ND < 250	4,040	392
MW-4	Well Installation	Second Quarter	6/25/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	3.9	ND < 0.5	5.6	ND < 0.5	ND < 100	199	ND < 50
	First Quarterly	Third Quarter	9/16/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	ND < 2	ND < 0.5	ND < 0.5	ND < 0.5	ND < 100	ND < 50	ND < 50
	Second Quarterly	Fourth Quarter	12/21/2002	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	4.8	ND < 50	3.8	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Third Quarterly	First Quarter	3/28/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	2.8	ND < 0.5	3.9	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Fourth Quarterly	Second Quarter	6/27/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1	ND < 0.5	0.7	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Fifth Quarterly	Third Quarter	9/25/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Sixth Quarterly	Fourth Quarter	12/29/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Seventh Quarterly	First Quarter	3/30/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	97	ND < 500
	Eighth Quarterly	Second Quarter	6/28/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Ninth Quarterly	Third Quarter	9/30/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	67	ND < 500
	Tenth Quarterly	Fourth Quarter	12/20/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 5.0	ND < 5.0	ND < 50.0	ND < 50	52
	Eleventh Quarterly	First Quarter	4/5/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50.0	ND < 50	86
	Twelfth Quarterly	Second Quarter	6/22/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50.0	ND < 50	85
	Thirteenth Quarterly	Third Quarter	9/30/2005	ND < 50.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50.0	ND < 50	53
	Fourteenth Quarterly	Fourth Quarter	12/18/2005	ND < 50.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50.0	ND < 50	110
	Fifteenth Quarterly	First Quarter	3/1/2006	ND < 50.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50.0	ND < 50	134

Table 4 (cont.)
Groundwater Analytical Results from Monitoring Wells
 McKinleyville 76
 2698 Central Avenue
 McKinleyville, California 95519

Sample Location	Sample Event	Annual Quarter	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)
MW-5	Well Installation	Second Quarter	6/25/2002	168,000	21,300	22,500	13,900	2,580	571,000	ND < 0.5	689	ND < 0.5	ND < 100	2,580	ND < 50
	First Quarterly	Third Quarter	9/16/2002	246,000	36,900	37,000	14,100	4,500	540,000	ND < 0.5	2,530	ND < 0.5	----	10,200	ND < 50
	Second Quarterly	Fourth Quarter	12/21/2002	11,000	120	110	650	120	1,100	ND < 50	ND < 50	ND < 50	ND < 500	930	ND < 500
	Third Quarterly	First Quarter	3/28/2003	43,000	2,900	2,600	2,500	580	78,000	ND < 50	180	ND < 50	ND < 500	4,600	ND < 500
	Fourth Quarterly	Second Quarter	6/27/2003	230,000	25,000	27,000	13,300	2,700	280,000	ND < 500	1,500	ND < 500	ND < 5,000	9,600	ND < 500
	Fifth Quarterly	Third Quarter	9/25/2003	210,000	24,000	24,000	11,400	2,400	320,000	ND < 500	2,500	ND < 500	ND < 5,000	ND < 50	ND < 500
MW-6	Well Installation	Second Quarter	6/25/2002	11,900	2,370	0.8	5.4	0.8	22,600	ND < 0.5	274	ND < 0.5	ND < 100	295	ND < 50
	First Quarterly	Third Quarter	9/16/2002	44,700	11,500	1,470	357	802	61,600	ND < 0.5	715	ND < 0.5	ND < 100	729	ND < 50
	Second Quarterly	Fourth Quarter	12/21/2002	17,000	5,500	ND < 500	ND < 1,000	ND < 500	67,000	ND < 500	ND < 500	ND < 500	ND < 5,000	440	ND < 500
	Third Quarterly	First Quarter	3/28/2003	270	ND < 500	ND < 500	ND < 1,000	ND < 500	1,200	ND < 500	ND < 500	ND < 500	ND < 5,000	----	ND < 500
	Fourth Quarterly	Second Quarter	6/27/2003	ND < 50	5.4	0.6	ND < 1	ND < 0.5	80	ND < 0.5	11	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Fifth Quarterly	Third Quarter	9/25/2003	11,000	1,500	ND < 0.5	2.4	ND < 0.5	17,000	ND < 50	280	ND < 50	1,200	73	ND < 500
	Sixth Quarterly	Fourth Quarter	12/29/2003	5,100	1,200	ND < 500	ND < 1,000	ND < 500	29,000	ND < 500	ND < 500	ND < 500	ND < 5,000	ND < 50	ND < 500
	Seventh Quarterly	First Quarter	3/30/2004	1,600	100	ND < 5.0	ND < 10.0	ND < 5.0	1,500	ND < 5.0	36	ND < 5.0	440	120	ND < 500
	Eighth Quarterly	Second Quarter	6/28/2004	5,700	460	ND < 50	ND < 100	ND < 50	6,000	ND < 50	230	ND < 50	ND < 500	82	ND < 500
	Ninth Quarterly	Third Quarter	9/30/2004	37,000	4,400	ND < 50	ND < 150	ND < 50	59,000	ND < 2.5	46	ND < 2.5	ND < 250	450	ND < 500
	Tenth Quarterly	Fourth Quarter	12/20/2004	50,500	4,210	ND < 400	ND < 800	ND < 400	58,100	ND < 400	ND < 4,000	ND < 4,000	ND < 40,000	488	114
	Eleventh Quarterly	First Quarter	4/5/2005	12,200	842	ND < 40	ND < 80	ND < 40	10,000	ND < 40	123	ND < 40	ND < 4,000	238	208
	Twelveth Quarterly	Second Quarter	6/22/2005	4,250	914	ND < 10	ND < 20	ND < 10	3,460	ND < 10	119	ND < 10	ND < 1,000	100	110
	Thirteenth Quarterly	Third Quarter	9/30/2005	6,340	884	ND < 25.0	ND < 50.0	ND < 25.0	7,410	ND < 25.0	224	ND < 25.0	ND < 2,500	194	56
	Fourteenth Quarterly	Fourth Quarter	12/18/2005	4,890	731	ND < 25.0	ND < 50.0	ND < 25.0	6,360	ND < 25.0	194	ND < 25.0	ND < 2,500	259	140
	Fifteenth Quarterly	First Quarter	3/1/2006	ND < 50.0	0.5	ND < 0.5	ND < 1.0	ND < 0.5	14.4	ND < 0.5	0.8	ND < 0.5	ND < 50.0	ND < 50	108

Notes:

TPHg: Total petroleum hydrocarbons as gasoline.

MTBE: Methyl tertiary butyl ether

DIPE: Diisopropyl Ether

TAME: Tertiary amyl methyl ether

ETBE: Ethyl tertiary butyl ether

TBA: Tertiary butanol

TPHd: Total petroleum hydrocarbons as diesel

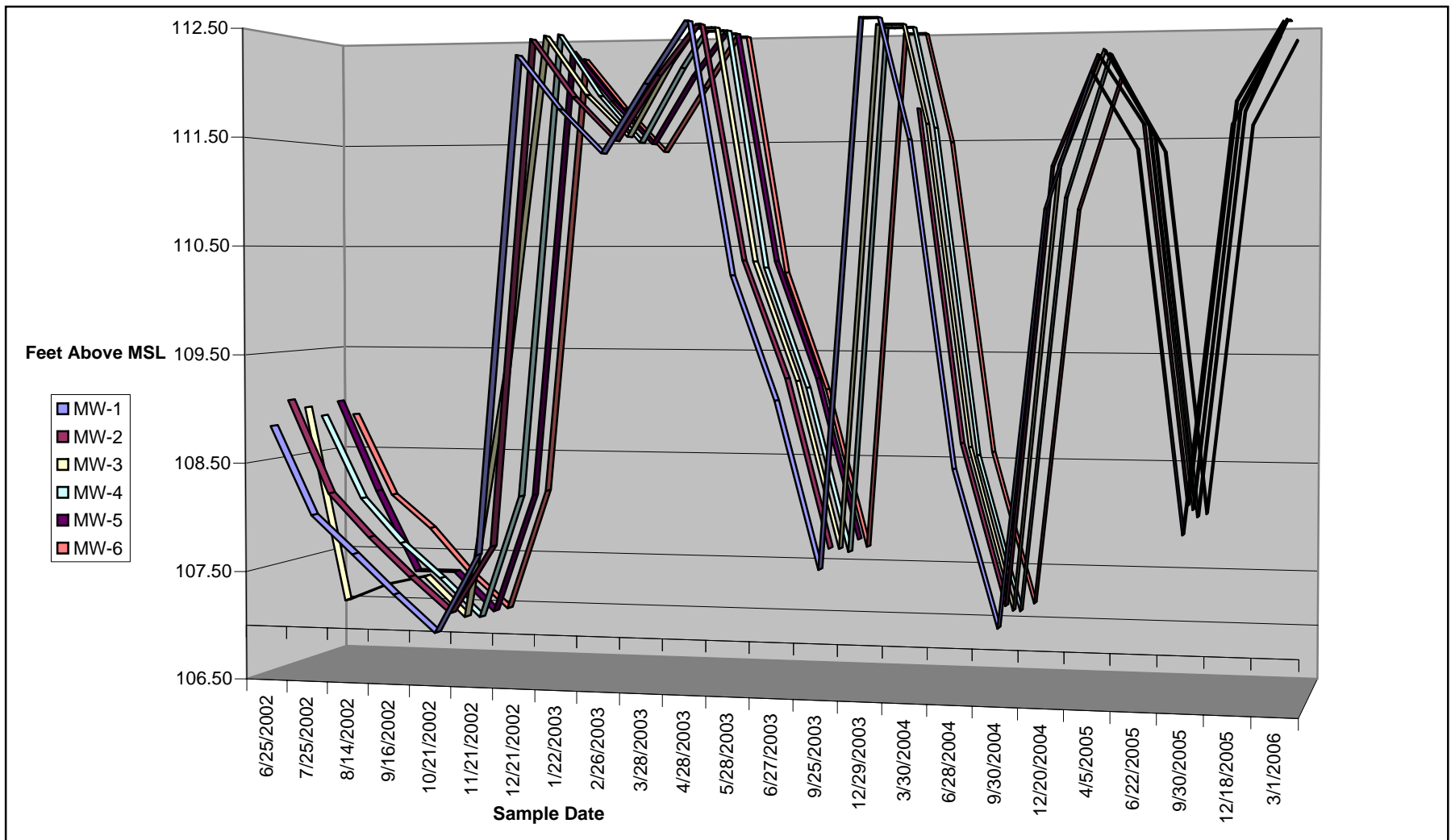
TPHmo: Total petroleum hydrocarbons as motor oil

ppb: parts per billion = µg/l = .001 mg/l = 0.001 ppm.

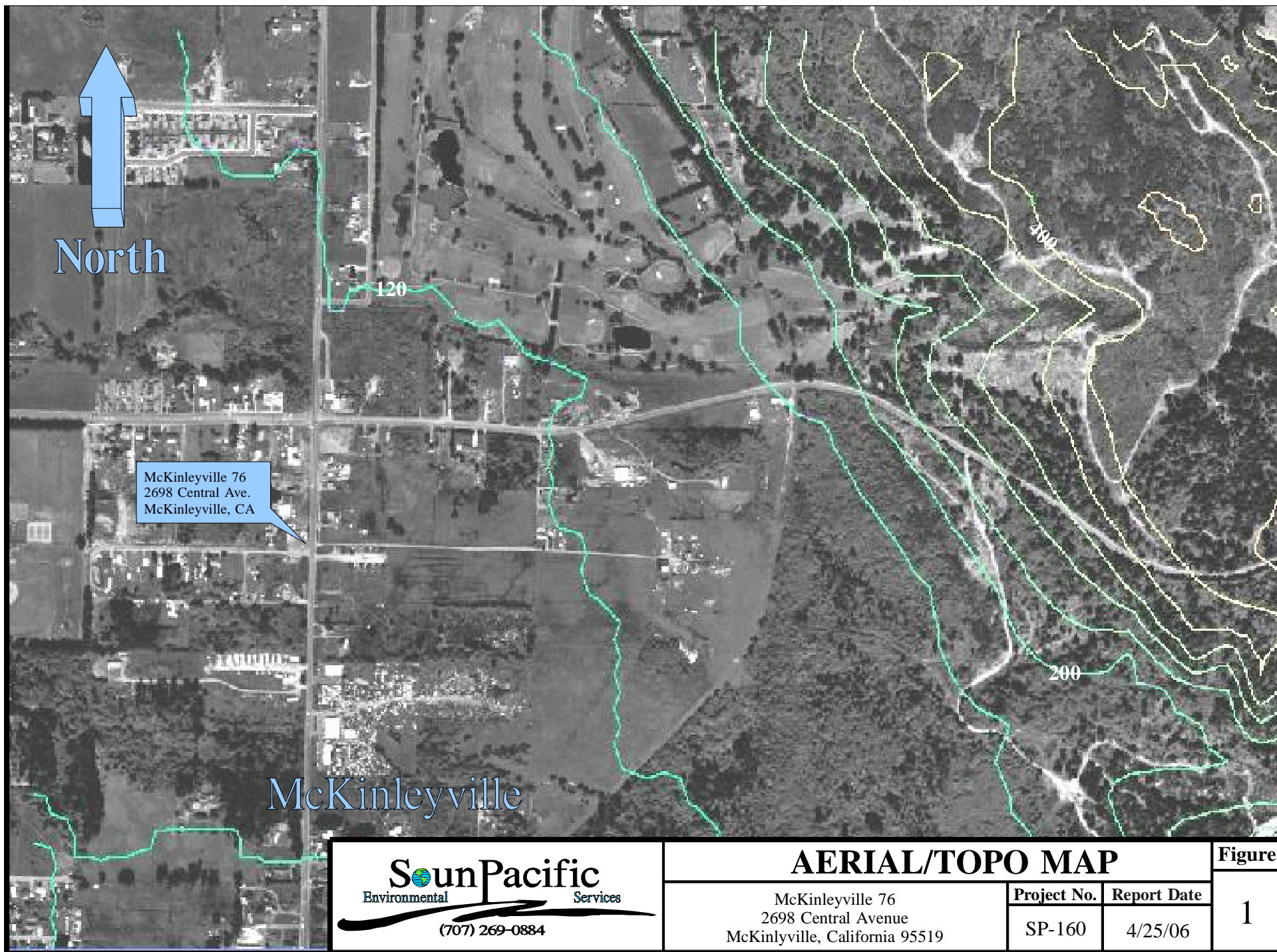
ND: Not detected at or below the method detection limit as shown.

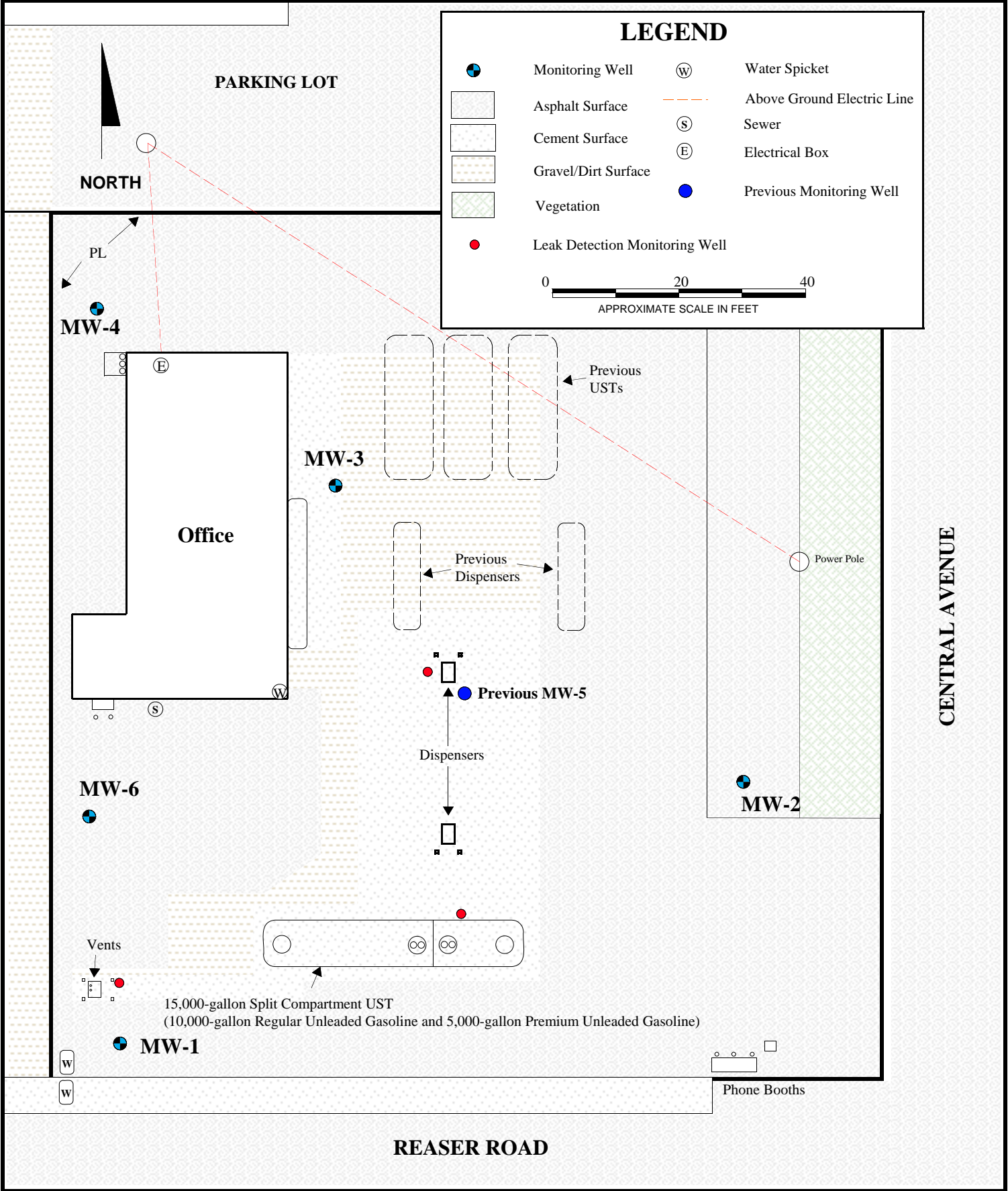
No analytical results for methanol and ethanol were reported at or above the detection limits since the inception of the monitoring, therefore they have been omitted from this table to save space.

Chart 1
Hydrograph
McKinleyville 76
2698 Central Avenue
McKinleyville, California 95519



Figures





LEGEND

- Monitoring Well
- Soil Boring Drilled 4-6/02
- Soil Boring Drilled 10/00
- Soil Boring Drilled 3/97 (CGI)
- Soil Sample Taken 12/96 (CGI)
- Groundwater Sample 12/96 (CGI)
- Hand-Augered Borings (9/04)

0 30 60
APPROXIMATE SCALE IN FEET

GRAVEL DRIVEWAY

PARKING LOT

NORTH

Apartment Building

Apartment Building

Office

B-14

B-6

B-10

B-3

B-25

B-24

B-2

B-23

B-1

B-22

B-28

B-27

B-21

B-30

B-20

B-26

B-29

MW-2

B-7

MW-1

15,000-gallon Gasoline UST Installation Pit

B-8

Existing Cement Pad

Previous 55-gallon Waste Oil UST (Removed 12/96)

Excavation Limits

MW-3

B-19

B-4

MW-5

MW-4

B-15

B-16

B-17

B-13

B-12

B-18

REASOR ROAD

B-11

CENTRAL AVENUE

SAMPLE LOCATION MAP

Figure

McKinleyville 76
2698 Central Avenue
McKinleyville, California 95519

Project No.

SP-160

Report Date

4/25/06

3

Environmental

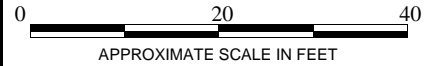
Services

PARKING LOT

LEGEND



Monitoring Well



NORTH

MW-4

Casing Elevation: 115.18
Depth to Water: 2.60
Elevation above MSL: 112.58

MW-3

Casing Elevation: 114.78
Depth to Water: 2.30
Elevation above MSL: 112.48

MW-2

Casing Elevation: 113.81
Depth to Water: 1.38
Elevation above MSL: 112.43

MW-6

Casing Elevation: 114.70
Depth to Water: 2.32
Elevation above MSL: 112.38

MW-1

Casing Elevation: 114.23
Depth to Water: 1.95
Elevation above MSL: 112.28

GW Flow Direction: SSW
GW Gradient: 0.003 ft/ft

REASER ROAD

CENTRAL AVENUE

GROUNDWATER GRADIENT MAP MARCH 2006

Figure

McKinleyville 76
2698 Central Avenue
McKinleyville, California 95519

Project No.

SP-160

Report Date

4/25/06

4

Environmental

Services

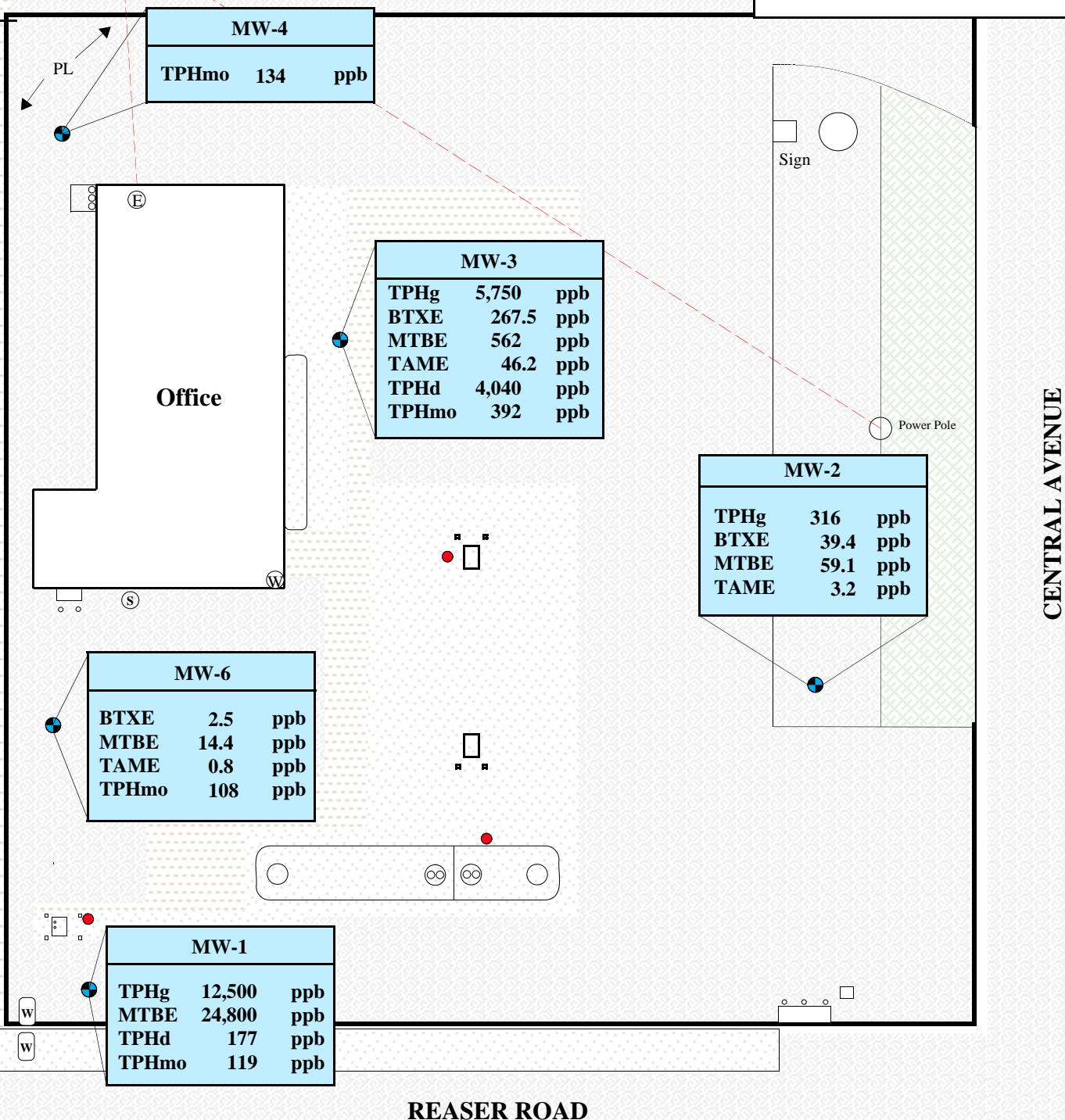
PARKING LOT

LEGEND

- Monitoring Well
- Leak Detection Monitoring Well

0 20 40
APPROXIMATE SCALE IN FEET

NORTH



GROUNDWATER ANALYTICAL RESULTS

Figure

McKinleyville 76
2698 Central Avenue
McKinleyville, California 95519

Project No.

SP-160

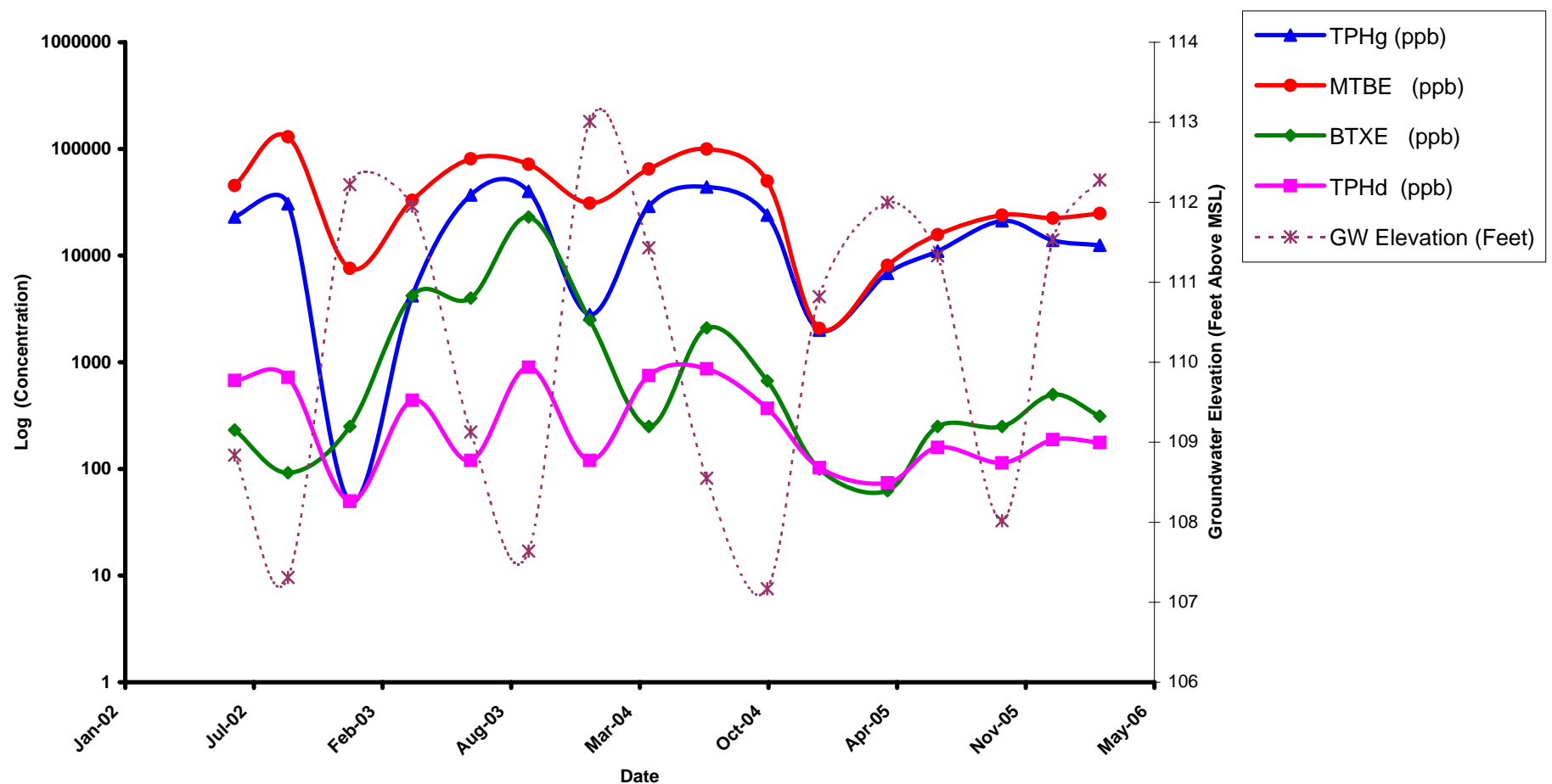
Report Date

4/25/06

5

Environmental

Services



**MW-1 HYDROCARBON
 CONCENTRATIONS VS. TIME**

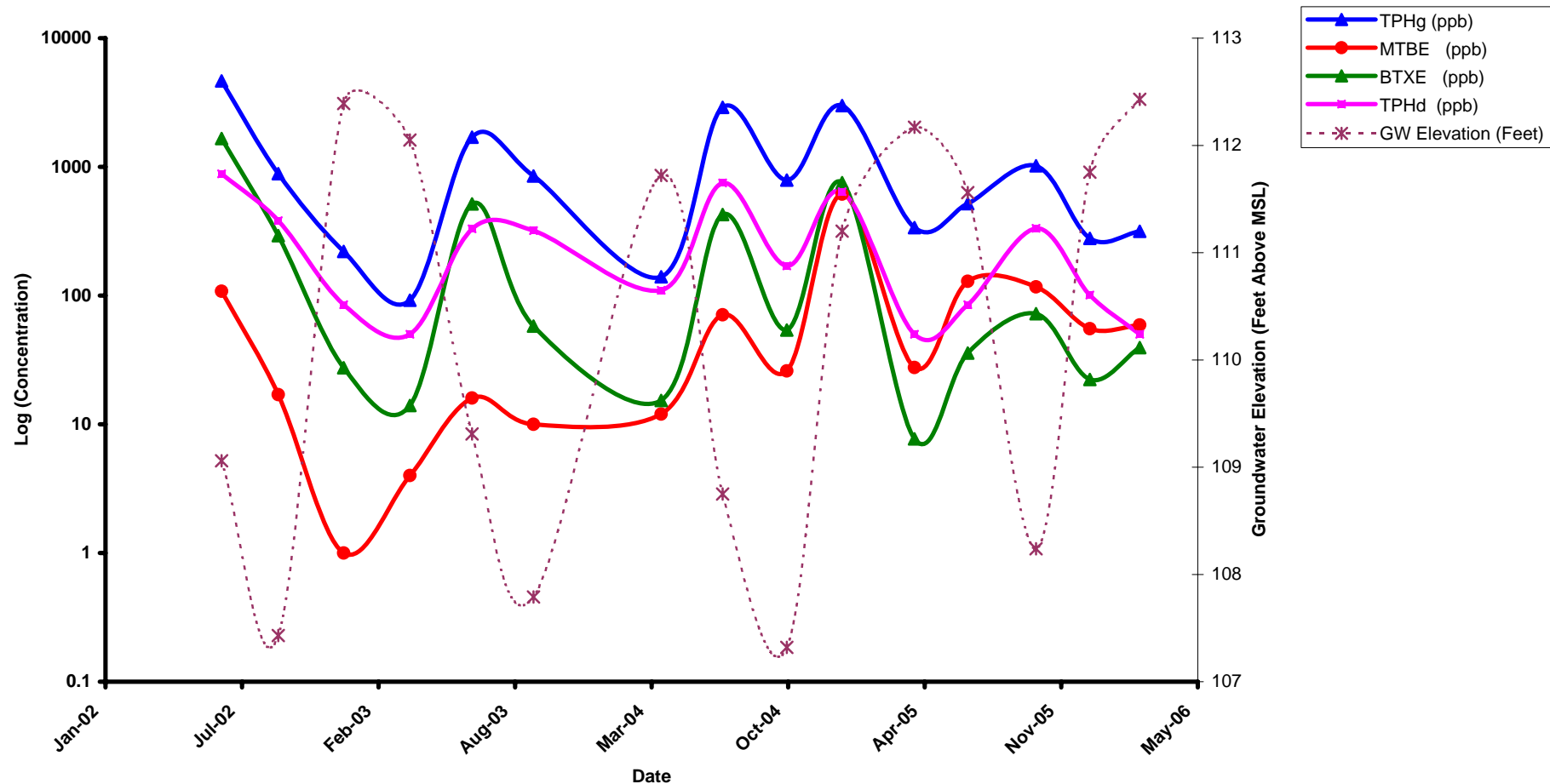
McKinleyville 76
 2698 Central Avenue
 McKinleyville, California 95519

Project No.
 SP-160

Date
 4/25/2006

Figure

6



SounPacific
 Environmental Services
 (707) 269-0884

MW-2 HYDROCARBON CONCENTRATIONS VS. TIME

McKinleyville 76
 2698 Central Avenue
 McKinleyville, California 95519

Project No.

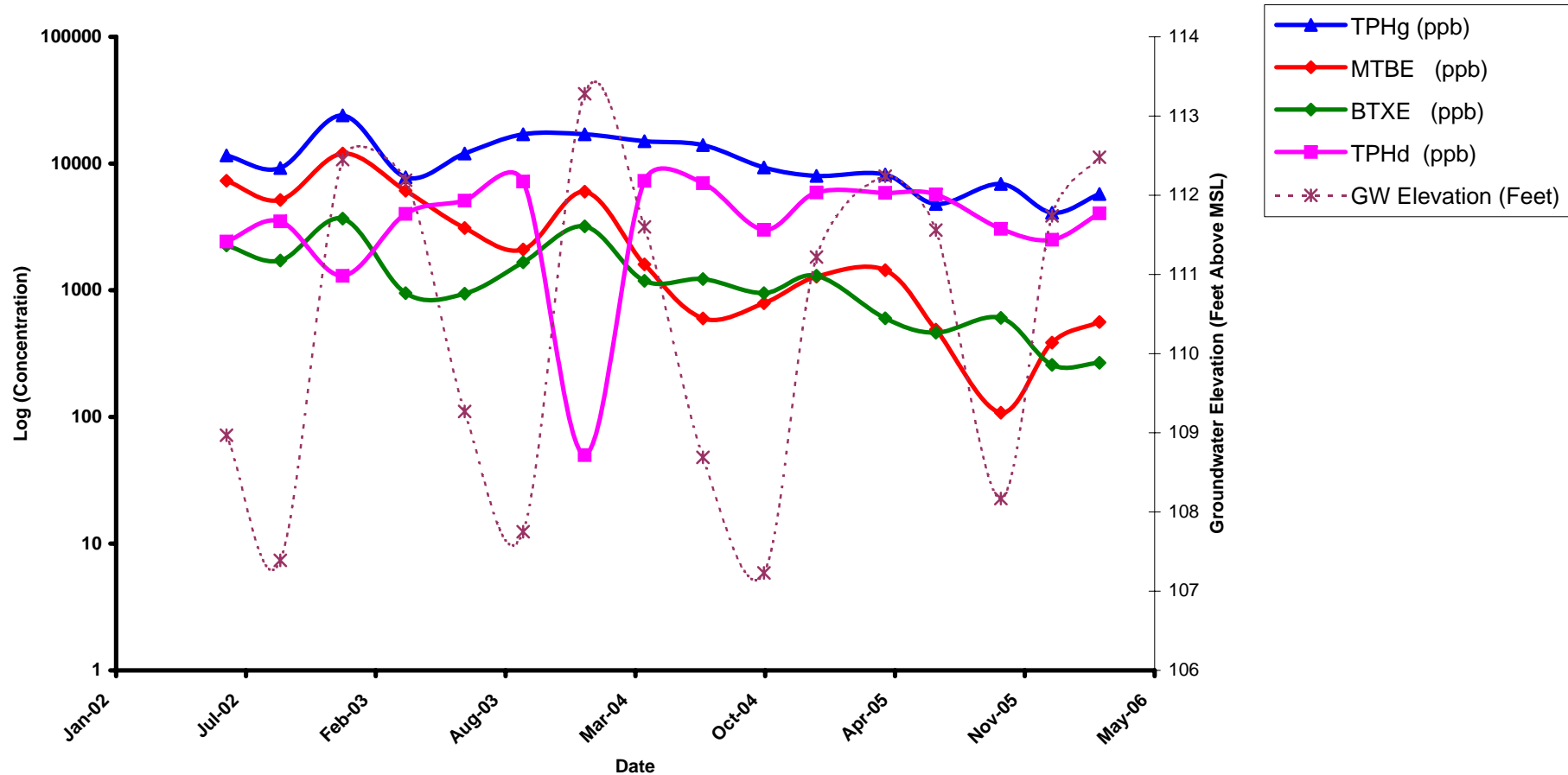
SP-160

Date

4/25/2006

Figure

7



Soun Pacific
Environmental Services
(707) 269-0884

MW-3 HYDROCARBON CONCENTRATIONS VS. TIME

McKinleyville 76
2698 Central Avenue
McKinleyville, California 95519

Project No.

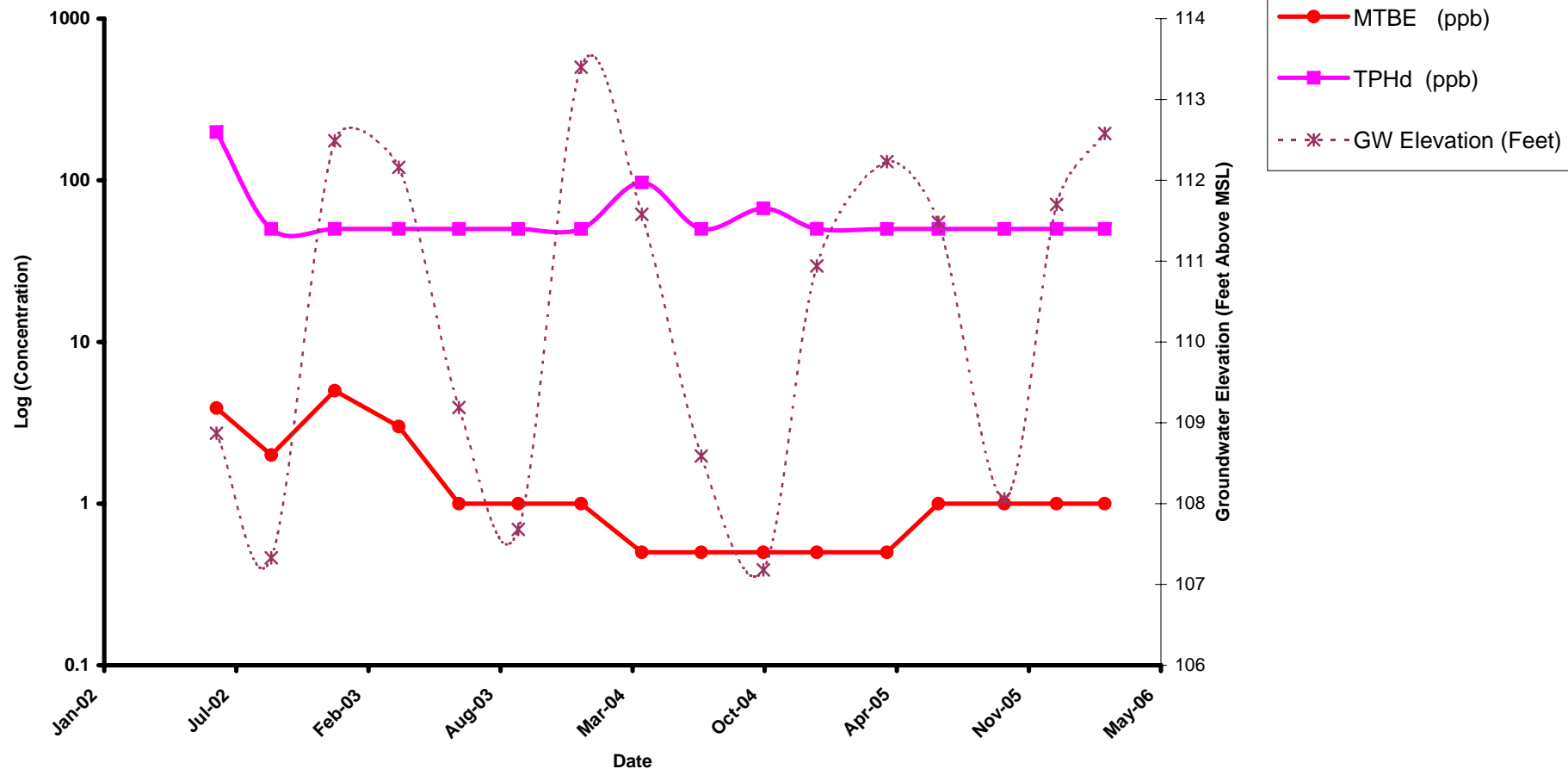
SP-160

Date

4/25/2006

Figure

8



**MW-4 HYDROCARBON
CONCENTRATIONS VS. TIME**

McKinleyville 76
2698 Central Avenue
McKinleyville, California 95519

Project No.

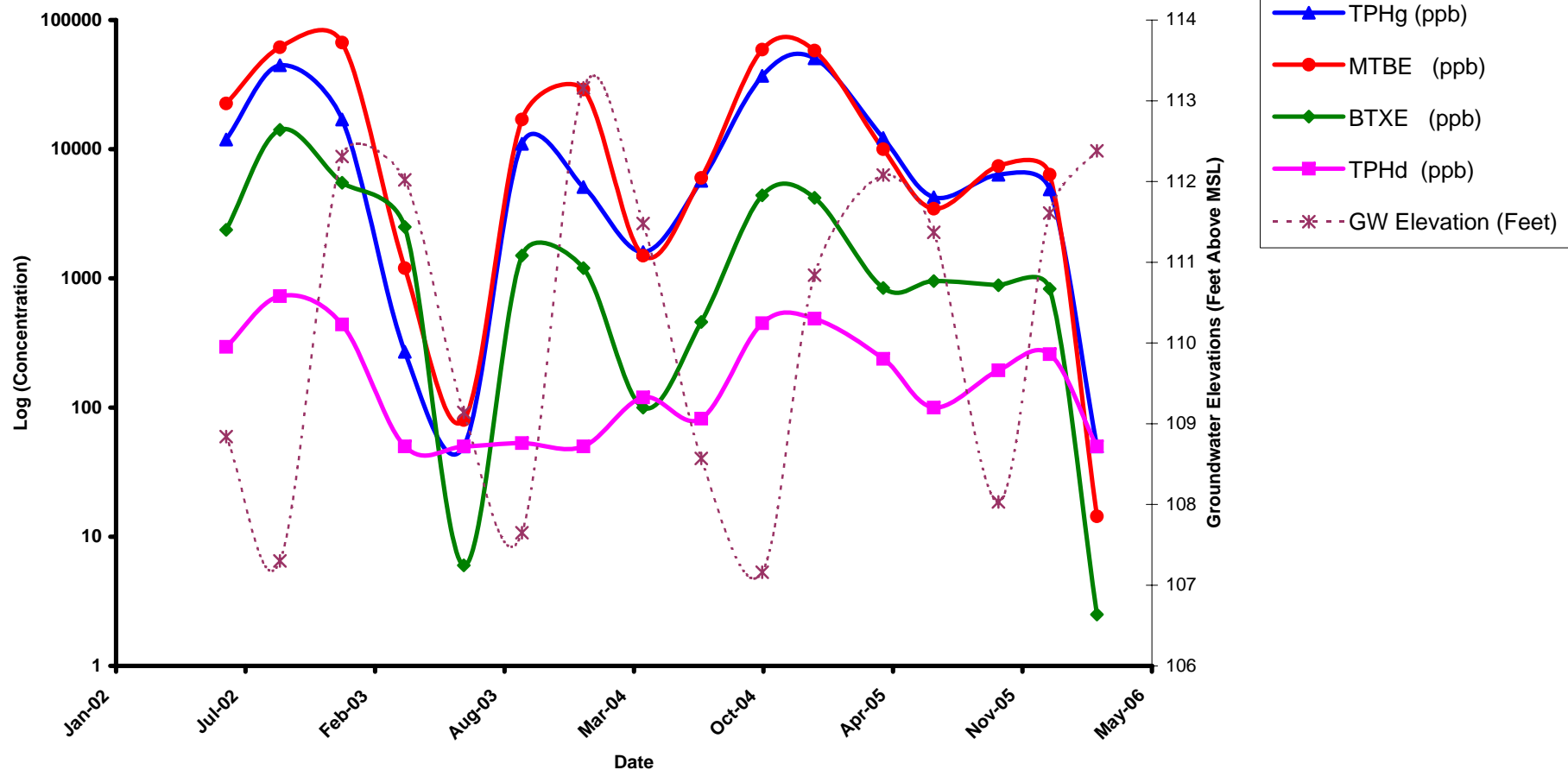
SP-160

Date

4/25/2006

Figure

9



Appendices

Appendix A



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voice 530.243.7234 2218 Railroad Avenue
fax 530.243.7494 Redding, California 96001

March 20, 2006

Lab ID: 6030345

Andy Malone
SOUNPACIFIC
4612 GREENWOOD HEIGHTS DR
KNEELAND, CA 95549
RE: MCKINLEYVILLE 76 SP-160

Dear Andy Malone,

Enclosed are the analysis results for Work Order number 6030345. All analysis were performed under strict adherence to our established Quality Assurance Plan. Any abnormalities are listed in the qualifier section of this report.

If you have any questions regarding these results, please feel free to contact us at any time. We appreciate the opportunity to service your environmental testing needs.

Sincerely,

Ricky Jensen
For

Ricky Jensen

Ricky D. Jensen
Laboratory Director

California ELAP Certification Number 1677



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laboratory

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voice 530.243.7234 2218 Railroad Avenue
fax 530.243.7494 Redding, California 96001

Report To: SOUNPACIFIC
4612 GREENWOOD HEIGHTS DR
KNEELAND, CA 95549

Attention: Andy Malone

Project: MCKINLEYVILLE 76 SP-160

Lab No: 6030345
Reported: 03/20/06
Phone: 707-269-0884
P.O. #

Volatile Organic Compounds

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed	Prepared	Batch
MW-1 Water (6030345-01) Sampled:03/01/06 00:00 Received:03/08/06 13:10									
Gasoline	ug/l	12500	G-03, R-07		6250	EPA 8015/8260	03/09/06	03/09/06	B6C0295
Benzene	"	ND	R-07		62.5	"	"	"	"
Toluene	"	ND	R-07		62.5	"	"	"	"
Ethylbenzene	"	ND	R-07		62.5	"	"	"	"
Xylenes (total)	"	ND	R-07		125	"	"	"	"
Methyl tert-butyl ether	"	24800	R-01, R-07		1000	"	03/09/06	"	"
Di-isopropyl ether	"	ND	R-07		62.5	"	03/09/06	"	"
Tert-amyl methyl ether	"	ND	R-07		62.5	"	"	"	"
Ethyl tert-butyl ether	"	ND	R-07		62.5	"	"	"	"
Tert-butyl alcohol	"	ND	R-07		6250	"	"	"	"
Surrogate: 4-Bromofluorobenzene		89.2 %		43-155		"	"	"	"
MW-2 Water (6030345-02) Sampled:03/01/06 00:00 Received:03/08/06 13:10									
Gasoline	ug/l	316			50.0	EPA 8015/8260	03/09/06	03/09/06	B6C0295
Benzene	"	14.7			0.5	"	"	"	"
Toluene	"	1.3			0.5	"	"	"	"
Ethylbenzene	"	10.8			0.5	"	"	"	"
Xylenes (total)	"	12.6			1.0	"	"	"	"
Methyl tert-butyl ether	"	59.1			1.0	"	"	"	"
Di-isopropyl ether	"	ND			0.5	"	"	"	"
Tert-amyl methyl ether	"	3.2			0.5	"	"	"	"
Ethyl tert-butyl ether	"	ND			0.5	"	"	"	"
Tert-butyl alcohol	"	ND			50.0	"	"	"	"
Surrogate: 4-Bromofluorobenzene		97.6 %		43-155		"	"	"	"
MW-3 Water (6030345-03) Sampled:03/01/06 00:00 Received:03/08/06 13:10									
Gasoline	ug/l	5750	G-02, R-07		250	EPA 8015/8260	03/09/06	03/09/06	B6C0295
Benzene	"	189	R-07		2.5	"	"	"	"
Toluene	"	15.1	R-07		2.5	"	"	"	"
Ethylbenzene	"	45.6	R-07		2.5	"	"	"	"
Xylenes (total)	"	17.8	R-07		5.0	"	"	"	"
Methyl tert-butyl ether	"	562	R-01, R-07		20.0	"	03/09/06	"	"
Di-isopropyl ether	"	ND	R-07		2.5	"	03/09/06	"	"
Tert-amyl methyl ether	"	46.2	R-07		2.5	"	"	"	"
Ethyl tert-butyl ether	"	ND	R-07		2.5	"	"	"	"
Tert-butyl alcohol	"	ND	R-07		250	"	"	"	"
Surrogate: 4-Bromofluorobenzene		101 %		43-155		"	"	"	"
MW-4 Water (6030345-04) Sampled:03/01/06 00:00 Received:03/08/06 13:10									
Gasoline	ug/l	ND			50.0	EPA 8015/8260	03/09/06	03/09/06	B6C0295
Benzene	"	ND			0.5	"	"	"	"
Toluene	"	ND			0.5	"	"	"	"
Ethylbenzene	"	ND			0.5	"	"	"	"
Xylenes (total)	"	ND			1.0	"	"	"	"
Methyl tert-butyl ether	"	ND			1.0	"	"	"	"
Di-isopropyl ether	"	ND			0.5	"	"	"	"
Tert-amyl methyl ether	"	ND			0.5	"	"	"	"
Ethyl tert-butyl ether	"	ND			0.5	"	"	"	"
Tert-butyl alcohol	"	ND			50.0	"	"	"	"
Surrogate: 4-Bromofluorobenzene		88.2 %		43-155		"	"	"	"
MW-6 Water (6030345-05) Sampled:03/01/06 00:00 Received:03/08/06 13:10									
Gasoline	ug/l	ND			50.0	EPA 8015/8260	03/09/06	03/09/06	B6C0295
Benzene	"	0.5			0.5	"	"	"	"
Toluene	"	ND			0.5	"	"	"	"

Andy Malone
Approved By

Basic Laboratory, Inc.
California D.O.H.S. Cert #1677



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voice 530.243.7234 2218 Railroad Avenue
fax 530.243.7494 Redding, California 96001

Report To: SOUNPACIFIC
4612 GREENWOOD HEIGHTS DR
KNEELAND, CA 95549

Attention: Andy Malone

Project: MCKINLEYVILLE 76 SP-160

Lab No: 6030345
Reported: 03/20/06
Phone: 707-269-0884
P.O. #

Volatile Organic Compounds

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed	Prepared	Batch
MW-6 Water (6030345-05)	Sampled:03/01/06 00:00	Received:03/08/06 13:10							
Ethylbenzene	"	ND			0.5	"	"	03/09/06	"
Xylenes (total)	"	ND			1.0	"	"	"	"
Methyl tert-butyl ether	"	14.4			1.0	"	"	"	"
Di-isopropyl ether	"	ND			0.5	"	"	"	"
Tert-amyl methyl ether	"	0.8			0.5	"	"	"	"
Ethyl tert-butyl ether	"	ND			0.5	"	"	"	"
Tert-butyl alcohol	"	ND			50.0	"	"	"	"
Surrogate: 4-Bromofluorobenzene		95.0 %		43-155		"	"	"	"


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4612 GREENWOOD HEIGHTS DR
KNEELAND, CA 95549

Attention: Andy Malone

Project: MCKINLEYVILLE 76 SP-160

Lab No: 6030345
Reported: 03/20/06
Phone: 707-269-0884
P.O. #

TPH Diesel & Motor Oil

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed	Prepared	Batch
MW-1 Water (6030345-01) Sampled:03/01/06 00:00 Received:03/08/06 13:10									
Diesel	ug/l	177			50	EPA 8015 MOD	03/15/06	03/09/06	B6C0255
Motor Oil	"	119			50	"	"	"	"
Surrogate: Octacosane		111 %			50-150	"	"	"	"
MW-2 Water (6030345-02) Sampled:03/01/06 00:00 Received:03/08/06 13:10									
Diesel	ug/l	ND			50	EPA 8015 MOD	03/15/06	03/09/06	B6C0255
Motor Oil	"	ND			50	"	"	"	"
Surrogate: Octacosane		114 %			50-150	"	"	"	"
MW-3 Water (6030345-03) Sampled:03/01/06 00:00 Received:03/08/06 13:10									
Diesel	ug/l	4040			50	EPA 8015 MOD	03/15/06	03/09/06	B6C0255
Motor Oil	"	392			50	"	"	"	"
Surrogate: Octacosane		99.8 %			50-150	"	"	"	"
MW-4 Water (6030345-04) Sampled:03/01/06 00:00 Received:03/08/06 13:10									
Diesel	ug/l	ND			50	EPA 8015 MOD	03/15/06	03/09/06	B6C0255
Motor Oil	"	134			50	"	"	"	"
Surrogate: Octacosane		105 %			50-150	"	"	"	"
MW-6 Water (6030345-05) Sampled:03/01/06 00:00 Received:03/08/06 13:10									
Diesel	ug/l	ND			50	EPA 8015 MOD	03/15/06	03/09/06	B6C0255
Motor Oil	"	108			50	"	"	"	"
Surrogate: Octacosane		105 %			50-150	"	"	"	"


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4612 GREENWOOD HEIGHTS DR
KNEELAND, CA 95549
Attention: Andy Malone
Project: MCKINLEYVILLE 76 SP-160

Lab No: 6030345
Reported: 03/20/06
Phone: 707-269-0884
P.O. #

Notes and Definitions

R-07 The sample was diluted due to the presence of high levels of target analytes resulting in elevated reporting limits.
R-01 The Reporting Limit and Detection Limit for this analyte have been raised due to necessary sample dilution.
G-03 The GRO result reported for this sample does not match the laboratory's gasoline standard, but is due primarily to MTBE.
G-02 The GRO result reported for this sample does not match the laboratory's gasoline standard.
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the detection limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
< Less than reporting limit
≤ Less than or equal to reporting limit
> Greater than reporting limit
≥ Greater than or equal to reporting limit
MDL Method Detection Limit
RL/ML Minimum Level of Quantitation
MCL/AL Maximum Contaminant Level/Action Level
mg/kg Results reported as wet weight
TTLC Total Threshold Limit Concentration
STLC Soluble Threshold Limit Concentration
TCLP Toxicity Characteristic Leachate Procedure


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Appendix B



Standard Operating Procedures

Groundwater Level Measurements and Free Phase Hydrocarbon Measurements

All SounPacific staff and contractors shall adopt the following procedures any time that groundwater elevations are determined for the purposes of establishing groundwater gradient and direction, and prior to any sampling event.

Wells are to be tested for free phase hydrocarbons (free product) before the first development or sampling of any new well, and in any well that has historically contained free product.

Equipment Checklist

- ☐ Combination water level / free phase hydrocarbon indicator probe (probe)
- ☐ Gauging Data / Purge Calculations Sheet
- ☐ Pencil or Pen/sharpie
- ☐ Disposable Gloves
- ☐ Distilled Water and or know water source on site that is clean
- ☐ Alconox (powder) or Liquinox (liquid) non-phosphate cleaners—do not use soap!
- ☐ Buckets or Tubs for decontamination station
- ☐ Tools necessary to access wells
- ☐ Site Safety Plan
- ☐ This Standard Operating Procedure
- ☐ Notify Job site business that you will be arriving to conduct work.

Procedure

1. Review Site Safety Plan and utilize personal protection appropriate for the contaminants that may be encountered.
2. Access and open all monitoring wells to be measured. Allow wells to equilibrate for approximately 15 minutes before taking any measurements.

3. Decontaminate probe with Alconox or Liquinox solution, and rinse with distilled water.
4. Determine the diameter of the well to be measured and indicate this on the Gauging Data / Purge Calculations Sheet.
5. Words of caution: Please be careful with water level and product meters probes are not attached with high strength material so please make sure to avoid catching the end on anything in the well and make sure not to wind reel to the point that it could pull on the probe. *If product is suspect in a well, go to step 6, if **no** product is suspected go to step 7 below.*
6. **When product is present or suspected:** use the product level meter. Clip the static charge clamp to the side of the well casing. Then lower probe into the well through the product/water interface about one foot if possible. Then slowly raise the probe back up through the product/water interface layer and record the level as the tone changes from solid to broken-record this level in the Gauging Data / Purge Calculations Sheet to the nearest 0.01 foot (DTP). Continue to raise the probe up through the product until the tone stops completely-record this level on the Gauging Data / Purge Calculations Sheet to the nearest 0.01 foot (DTW). Then go to step 8.
7. **When no product is present or suspected:** If no free product is present, record the depth of the water (to the nearest 0.01 foot) relative to the painted black mark on the top of the well casing. Leave the probe in the well just a hair above the water level to ensure the well as equilibrated. As the well rises, the tone will sound. Make sure no increase in water levels have occurred in over a ten-minute period. Water levels can lower as well as rise. Make sure you note when the level you keep lowering the probe to has remained stable for at least ten minutes. Once this has been accomplished, please record this level in the Gauging Data / Purge Calculations Sheet to the nearest 0.01 foot (DTW).
8. Turn off the probe, and use the probe to determine the depth to the bottom of the well relative to the top of the well casing. This is the depth to bottom measurement (DTB).
9. Decontaminate probe and tape by washing in an Alconox/Liquinox solution (***read directions on solution for ratio of water to cleanser***) and use the toothbrush provided to remove any foreign substance from the probe and tape. Then triple rinse probe and tape with clean water and then proceed to take measurements in the next well.
10. If sampling is to occur, proceed to implement SounPacific's Standard Operating Procedure for Monitoring Well Purging and Sampling. If no sampling is to be performed, close and secure all wells and caps.



Standard Operating Procedures

Monitoring Well Purging and Groundwater Sampling

All SounPacific employees and contractors shall adopt the following procedures any time that groundwater samples are to be taken from an existing groundwater monitoring well.

Prior to the implementation of these procedures, the groundwater level **MUST** be measured and the presence of free phase hydrocarbons determined in accordance with SounPacific's Standard Operating Procedures for Groundwater Level Measurements and Free Phase Hydrocarbon Measurements.

Equipment Checklist

- ☐ **Gauging Data / Purge Calculations Sheet used for water level determination**
- ☐ Chain of Custody Form
- ☐ pH/ Conductivity / Temperature meter
- ☐ Pencil or Pen
- ☐ Indelible Marker
- ☐ Calculator
- ☐ Disposable Gloves
- ☐ Distilled Water
- ☐ Alconox/liquinox liquid or powdered non-phosphate cleaner
- ☐ Buckets or Tubs for decontamination station
- ☐ Bottom-filling bailer or pumping device for purging
- ☐ Disposable bottom-filling bailer and emptying device for sampling
- ☐ String, twine or fishing line for bailers
- ☐ Sample containers appropriate for intended analytical method (check with lab)
- ☐ Sample labels
- ☐ Site Safety Plan
- ☐ Tools necessary to access wells
- ☐ Drum space on site adequate for sampling event

Procedure

1. Review Site Safety Plan and utilize personal protection appropriate for the contaminants that may be encountered.
2. Measure groundwater levels and check for the presence of free product in accordance with the Standard Operating Procedures for Groundwater Level Measurements and Free Phase Hydrocarbon Measurements.

Purging

3. Calculate and record the volume of standing water in each well using the information provided on the Gauging Data / Purge Calculations sheet.
 $(DTB-DTW) \times \text{Conversion Factor} = \text{Casing Volume}$.
4. The purge volume shall be at least three times and no more than seven times the volume of standing water (the casing volume).
5. Purge the well by bailing or pumping water from the well into a calibrated receptacle, such as a five gallon bucket or tub with markings to indicate one gallon increments. Collect purgeate in a 55 gallon labeled drum and store on site. Drum labels should include the date, contents, site number, and SounPacific's name and telephone number.
6. Take measurements of pH, conductivity, temperature, and visual observations to verify the stabilization of these parameters. At least five measurements of these parameters should be made throughout the purging process. The parameters shall be considered stabilized if successive measurements vary by less than 0.25 pH units, 10% of conductivity in μS , and 1°C (or 1.8°F). Continue purging until at least three times the casing volume has been removed, and the measured parameters have stabilized as indicated above. Do not exceed seven casing volumes.
7. Take a final depth to groundwater measurement and calculate the casing volume of the recharged well. Ideally, the casing volume should have recharged to at least 80% of the original measured casing volume before sampling commences. If due to slow recharge rates it is not feasible to wait for the well to fully recharge, then note this on the Gauging Data / Purge Calculation Sheet and proceed to sample following the procedure below.

Sampling

8. **After completing groundwater measurement, and checking for free product if necessary, in accordance with SounPacific's Standard Operating Procedures for Groundwater Level Measurements and Free Phase Hydrocarbon Measurements, and after purging monitoring wells as described above, groundwater samples may be collected.**
9. Slowly lower a clean, previously unused disposable bailer into the well water approximately half of the bailer length, and allow the bailer to slowly fill.
10. Withdraw the full bailer from the monitoring well and utilize the included (clean and unused) bottom-emptying device to fill the necessary sample containers, and seal the container with the included PTFE (Teflon) lined cap.
11. When filling VOAs, fill the VOA completely full, with the meniscus rising above the rim of the bottle. Carefully cap the VOA and invert it and gently tap it to determine whether air bubbles are trapped inside. If the VOA contains air bubbles, refill the VOA and repeat this step.
12. All samples shall be labeled with the Sample ID, the Sample Date, and the Sample Location or Project Number. Use an indelible marker for writing on sample labels.
13. Record all pertinent sample data on the Chain of Custody.
14. Place samples in an ice chest cooled to 4°C with ice or "blue ice". Bottles should be wrapped in bubble wrap, and VOA's should be inserted in a foam VOA holder to protect against breakage. Samples are to be kept at 4°C until delivered to the laboratory. Any transference of sample custody shall be indicated on the Chain of Custody with the appropriate signatures as necessary.
15. Utilize clean, previously unused gloves, bailer and line, and bottom-emptying device for each well sampled.
16. When finished with all sampling, close and secure all monitoring wells.
17. Leave the site cleaner than when you arrived and drive safely.

Appendix C

GAUGING DATA/PURGE CALCULATIONS

Job Site: MCKINNEYVILLE 76Job No.: SP-160Event: 15th QUARTERLYDate: 3/1/06

SounPacific
Environmental Services

(707) 269-0884

WELL NO.	DIA (in.)	DTB (ft.)	DTW (ft.)	ST (ft.)	CV (gal.)	PV (gal.)	SPL (ft.)	Bailer Loads	Notes
MW-1	2	12.48	1.95	10.53	1.68	5.05			HC odor, STATION, DESILTING WALLS
MW-2	2	12.48	1.38	11.10	1.78	5.33			HC odor, DESILTING WALLS
MW-3	2	11.13	2.30	8.83	1.41	4.24			HC odor, STATION, DESILTING WALLS
MW-4	2	12.18	2.60	9.58	1.53	4.60			STATION, DESILTING WALLS
MW-6	2	12.18	2.32	9.86	1.58	4.73			HC odor, STATION, DESILTING WALLS

Explanation:

DIA = Well Diameter
DTB = Depth to Bottom
DTW = Depth to Water
ST = Saturated Thickness (DTB-DTW)
CV = Casing Volume (ST x cf)
PV = Purge Volume (standard 3 x CV, well development 10 x CV)
SPL = Thickness of Separate Phase Liquid

Conversion Factors (cf):

2 in. dia. well cf = 0.16 gal./ft.
4 in. dia. well cf = 0.65 gal./ft.
6 in. dia. well cf = 1.44 gal./ft.

Sampler:

JACK SKEAMAN

RECEIVED
03-08-06

FILE

Well Gauging/Sampling Report

Sheet 1 of 5

Date: 3/1/2006

Project Name: MCK. 76

Project No: SP-160

Well Number: MW-1

Analyses

Tested: TPHg, BTXE, 5-Oxy's, TPHd/mo

Sample

Containers: (3) HCL VOA's, (2) 1 Liter Amber bottles

Purge
Technique:

☐

Bailer

☒

Pump

Sounder
Used:

☐

Water Meter

☒

Interface
Meter

Water & Free Product Levels

Time	Depth to Water	Depth to Product	Notes:
10:43	1.95		SHRN
11:02	1.95		SHRN
	END		

Field Measurements

Time	Total Vol. Removed(gal)	pH	Temp(F)	Cond. (ms/cm)	DO(mg/L)	DO(%)	
12:09	0	6.52	56.23	0.473	0.55	5.3	
12:13	1.68	6.58	58.03	0.461	0.35	3.4	
12:17	3.36	6.50	58.42	0.439	0.27	2.6	
12:22	5.04	6.52	58.49	0.445	0.25	2.5	

Field Scientist: Jack SIKKAMAN

Well Gauging/Sampling Report

Sheet **2** of **5**

Date: **3/1/2006**

Project Name: **MCK. 76**

Project No: **SP-160**

Well Number: **MW-2**

Analyses

Tested: **TPHg, BTXE, 5-Oxy's, TPHd/mo**

Sample

Containers: **(3) HCL VOA's, (2) 1 Liter Amber bottles**

Purge
Technique:

☐

Bailer

☒

Pump

Sounder
Used:

☐

Water Meter

☒

Interface
Meter

Water & Free Product Levels

Time	Depth to Water	Depth to Product	Notes
10:31	1.39		NO SHOWN
10:57	1.38		NO SHOWN
	END		

Field Measurements

Time	Total Vol. Removed(gal)	pH	Temp.(F)	Cond./(ms/cm)	DO/(mg/L)	DO/(%)	
11:39	0	6.57	58.13	.199	.27	2.6	
11:45	1.78	6.57	59.31	.169	.16	1.6	
11:50	3.56	6.55	59.26	.169	.17	1.7	
11:55	5.34	6.57	59.30	.162	.19	1.9	

Field Scientist:

JACK SKRAHAN

Well Gauging/Sampling Report

Sheet **3** of **5**

Date: 3/1/2006

Project Name: MCK. 76

Project No: SP-160

Well Number: MLW-3

Analyses

Tested: TPHg, BTXE, 5-Oxy's, TPHd/mo

Sample

Containers: (3) HCL VOA's, (2) 1 Liter Amber bottles

Purge
Technique:

☐

Bailer

☒

Pump

Sounder
Used:

☐

Water Meter

☒

Interface
Meter

Water & Free Product Levels

Time	Depth to Water	Depth to Product	Notes
10:22	2.31		SHRN
10:54	2.30		SHRN
	END		

Field Measurements

Time	Total Vol. Removed/(gal)	pH	Temp/(F)	Cond./(ms/cm)	DO/(mg/L)	DO/(%)	
11:16	0	6.50	57.19	.542	.33	3.3	
11:21	1.41	6.55	57.20	.539	.34	3.4	
11:26	2.82	6.57	57.87	.548	.28	2.8	
11:30	4.23	6.59	57.78	.544	.31	3.1	

Field Scientist:

JACK SKEANAN

Well Gauging/Sampling Report

Sheet 4 of 5

Date: 3/1/2006

Project Name: MCK. 76

Project No: SP-160

Well Number: MW-4

Analyses

Tested: TPHg, BTXE, 5-Oxy's, TPHd/mo

Sample

Containers: (3) HCL VOA's, (2) 1 Liter Amber bottles

Purge
Technique:

☐

Bailer

☒

Pump

Sounder
Used:

☐

Water Meter

☒

Interface
Meter

Water & Free Product Levels

Time	Depth to Water	Depth to Product	Notes
10:11	2.59		SHOWN
10:51	2.6		SHOWN
	END		

Field Measurements

Time	Total Vol. Removed(gal)	pH	Temp.(F)	Cond./(ms/cm)	DO/(mg/L)	DO/(%)	
10:56	0	5.46	55.18	.142	6.29	59.6	
11:00	1.53	5.48	55.79	.142	5.41	51.6	
11:04	3.06	5.46	55.25	.202	4.83	45.8	
11:09	4.59	5.56	55.20	.105	4.45	42.2	

Field Scientist:

JACK SKIAHAN

Well Gauging/Sampling Report

Sheet **5** of **5**

Date: **3/1/2006**

Project Name: **MCK. 76**

Project No: **SP-160**

Well Number: **MW-6**

Analyses

Tested: **TPHg, BTXE, 5-Oxy's, TPHd/mo**

Sample

Containers: **(3) HCL VOA's, (2) 1 Liter Amber bottles**

Purge
Technique:

☐

Bailer

☒

Pump

Sounder
Used:

☐

Water Meter

☒

Interface
Meter

Water & Free Product Levels

Time	Depth to Water	Depth to Product	Notes:
10:39	2.32		SATURN
10:59	2.32		SATURN
	END		

Field Measurements

Time	Total Vol. Removed/(gal)	pH	Temp/(F)	Cond./(ms/cm)	DO/(mg/L)	DO/(%)	
12:32	0	5.65	55.36	0.124	1.23	11.7	
12:39	1.58	5.79	55.76	0.129	0.53	5.0	
12:45	3.16	5.74	55.80	0.130	0.56	5.4	
12:53	4.74	5.79	56.00	0.286	0.52	5.0	

Field Scientist:

JACK SKERMAN